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铁线莲属研究随记(Ⅴ)

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Notes on the genus *Clematis* (Ranunculaceae) (Ⅴ)

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Abstract (1) Nine species and 4 varieties are described as new, and 2 new ranks, 1 new combination, and 1 new name are proposed. (2) *Clematis dioica* L. ssp. *virginiana* (L.) Kuntze var. *bahamica* Kuntze, *C. bahamica* (Kuntze) Britton, *C. orbiculata* Correll, *C. brasiliana* DC. var. *laxa* St. Hilaire, *C. perulata* Kuntze, *C. barrancae* Jones, *C. discolor* Gardn., *C. laxiflora* Baker, *C. bathiei* Lévl., and *C. mauritiana* Lam. var. *sulfurea* Viguier & Perrier are reduced into synonymy. (3) A new classification for the varieties of *C. chinensis* Osbeck is proposed. (4) The specific status of *C. flukenetii* DC. is discussed and confirmed. (5) The differences between *C. acapulcensis* Hook. & Arn., the South American population of which has been misidentified as *C. affinis* St. Hilaire, and its close ally, *C. affinis* St. Hilaire, are given. (6) The taxonomical confusion made by Viguier and Perrier about the species belonging to sect. *Meclatis* subsect. *Wightianae* distributed in Madagascar and adjoining islands is clarified, and an enumeration of them with a key is given.

Key words *Clematis*; New taxa; New rank; New combination; New name; Taxonomical problems

摘要 (1) 描述了9新种,4新变种;做出了2新等级,1新组合和1新名称。(2) 归并了以下拉丁学名: *Clematis dioica* L. ssp. *virginiana* (L.) Kuntze var. *bahamica* Kuntze, *C. bahamica* (Kuntze) Britton, *C. orbiculata* Correll, *C. brasiliana* DC. var. *laxa* St. Hilaire, *C. perulata* Kuntze, *C. barrancae* Jones, *C. discolor* Gardn., *C. laxiflora* Baker, *C. bathiei* Lévl.和 *C. mauritiana* Lam. var. *sulfurea* Viguier & Perrier。(3) 对威灵仙 *C. chinensis* Osbeck 的5个变种进行了分类;特产日本的 *C. fujisanensis* Hisauti & Hara 与 *C. chinensis* 极为相近,主要区别在于具较大的花,但有时花与 *C. chinensis* 的花同样大,由于区别不大,在本文中被降级作变种处理;与其近缘、具强烈退化花序、特产华东的 *C. anhweiensis* M. C. Chang 也随之被处理为变种。(4) 瑞典学者 Johnson 在最近出版的铁线莲属专著中将特产西印度群岛东部的 *C. plukenetii* DC. 归并于特产美国东南部的 *C. catesbyana* Pursh; 本文不同意他做出的归并,并列出了这两个种的明显区别特征,确认后者是一个应该得到承认的独立的种。(5) 根据墨西哥标本描述的 *C. acapulcensis* Hook. & Arn. 原知分布于中美一带,而其在南美的居群和一小叶多毛的新变种(var. *puberula*)过去长期间被误定为其近缘种 *C. affinis* St. Hilaire; 这个混乱在本文中得到澄清,同时,本文给出了这二近缘种的区别特征。(6) Viguier 和 Perrier 两位学者在上世纪四十年代末研究马达加斯加一带的黄花铁线莲组-怀特铁线莲亚组(sect. *Meclatis* subsect. *Wightianae*)植物时做出了不少错误鉴定: (a) 将特产马达加斯加的具三出复叶的 *C. mauritiana* Lam. var. *mauritiana*, var. *coriacea* 和 *C. microcuspis* Baker, 以及具单叶的 *C. actinostemmatifolia* W. T. Wang 均鉴定为分布于非洲大陆的 *C. simensis* Fresen., 并将后者作为分布于亚洲和欧洲的 *C. orientalis* L.的亚种处理; (b) 将特产马达加斯加具三出复叶的 *C. laxiflora* Baker 和具一回

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羽状复叶的 *C. ibarensis* Baker 鉴定为特产印度南部的 *C. wightiana* Wall.，也将后者作为 *C. orientalis* 的亚种处理；(c) 将特产科摩罗(Comoros)具二回羽状复叶的 *C. comoresensis* W. T. Wang 鉴定为 *C. brachiata* Thunb.，也将后者作为 *C. orientalis* L.的亚种处理；(d) 将 *C. ibarensis* Baker (具一回羽状复叶和两性花)这一拉丁学名用在了另一特产马达加斯加具 2～3 回羽状复叶和单性花、应属于单性铁线莲组 sect. *Aspidanthera* 的种(*C. rutoides* W. T. Wang)之上；(e) 将另一特产马达加斯加具一回羽状复叶和单性花、也属于单性铁线莲组的 *C. edentata* Baker (= *C. insidiosa* Baill.)降级作为这两位学者曲解的 *C. ibarensis* Baker 的亚种处理；(f) 将特产马达加斯加的 *C. dissecta* Baker 归并到属于茴芹叶铁线莲组(sect. *Pseudanemone*)的 *C. pimpinellifolia* Hook.中。此次本文第五部分继去年第一、二部分之后对上述混乱情况做出了完全澄清，并给出了分布于马达加斯加及其邻近岛屿的怀特铁线莲亚组 8 种植物的检索表；由于 *C. ibarensis* Baker 的定义被上述两位学者严重误解，本文根据较多具花、果的标本写出了此种完整、正确的形态描述。

关键词 铁线莲属；新分类群；新等级；新组合；新名；分类学问题

铁线莲属 Clematis L.

1 绣球藤组 Sect. Cheiropsis DC.

1.1 宁静山铁线莲 新种 图 1：4～6

Clematis ningjingshanica W. T. Wang, sp. nov. Fig. 1: 4～6

Affinis *C. montanae* Buch.-Ham. ex DC., quae ramis 4～10-canaliculatis puberulis haud lineolatis, foliolis tenuioribus papyraceis margine dentatis terminalibus indivisis vel 3-lobatis, petiolis longioribus (2.5～9 cm), pedicellis longioribus (3～10 cm), sepalis albis vel roseo-suffusis distinguitur.

Liana lignosa. Rami subteretes, haud canaliculati, laeves, nodis sparse puberulis exceptis glabri, sub lente minute lineolati; gemmarum squamae coriaceae, triangulares, 4～5 mm longae, 3～3.5 mm latae, dense ciliolatae, ceterum glabrae. Folia ternata, 1～2-juga cum floribus 2～3 e gemma axillari rami vetusti nascentia; foliola coriacea, terminalia petiolulata, petiolulis ca. 5 mm longis, rhombico-ovata, ca. 1.4 cm longa, 1.2 cm lata, apice acuta, basi late cuneata, 3-partita, lobo centrali anguste rhombico 3-lobulato, lobis lateralibus oblique angusteque oblongis 1-denticulatis, supra glabra, subtus ad costam mediam pilosa, ea lateralia minora, subsessilia, oblique angusteque ovata, ca. 1.2 cm longa, 8 mm lata, paulum infra medium 3-lobata, margine integra, supra glabra, subtus ad costam mediam sparse pilosa, nervis basalibus fere planis; petioli 1～1.3 cm longi, sparse pilosi. Flos 2.7～3.2 cm diametro; pedicellus 2～3 cm longus, puberulus. Sepala 4, purpureo-rubra (ex collectoribus), patentia, obovata vel anguste obovata, raro elliptica, 1.3～1.7 cm longa, 0.8～1.35 cm lata, apice rotundata, mucronulata, intus glabra, extus sparse adpresseque puberula, interdum medio sparse pubescentia. Stamina 6～11 mm longa, glabra, filamentis anguste linearibus, antheris linearibus vel anguste linearibus 2～2.8 mm longis apice obtusis. Carpella ca. 15, ovariis glabris, stylis ca. 7 mm longis dense villosis.

China. Xizang (西藏): Mt. Ningjingshan (宁静山), Yanjing (盐井), Juelongshe (觉龙社), vine, sepals spreading, purple-red, anthers yellow, 1961-06-07, P. K. Hsiao *et al.* (肖培根等) 1128 (holotype, here designated, IMD).

In leaves together with flowers arising from axillary buds, membranous obovate sepals, and glabrous ovaries this new species is related to *C. montana* Buch.-Ham ex DC., and in its not sulcate branches, smaller thicker coriaceous leaves, 3-parted terminal leaflets, subsessile lateral leaflets,

Fig. 1　1 ~ 3. *Clematis pinnata* Maxim. var. *ternatifolia* W. T. Wang　1. Flowering branch; 2. Flower; 3. Stamens (from Pinggu Exped. 224). 4 ~ 6. *C. ningjingshanica* W. T. Wang　4. Flowering branch; 5. Leaf; 6. Stamen (from P. K. Hsiao *et al*. 1128).

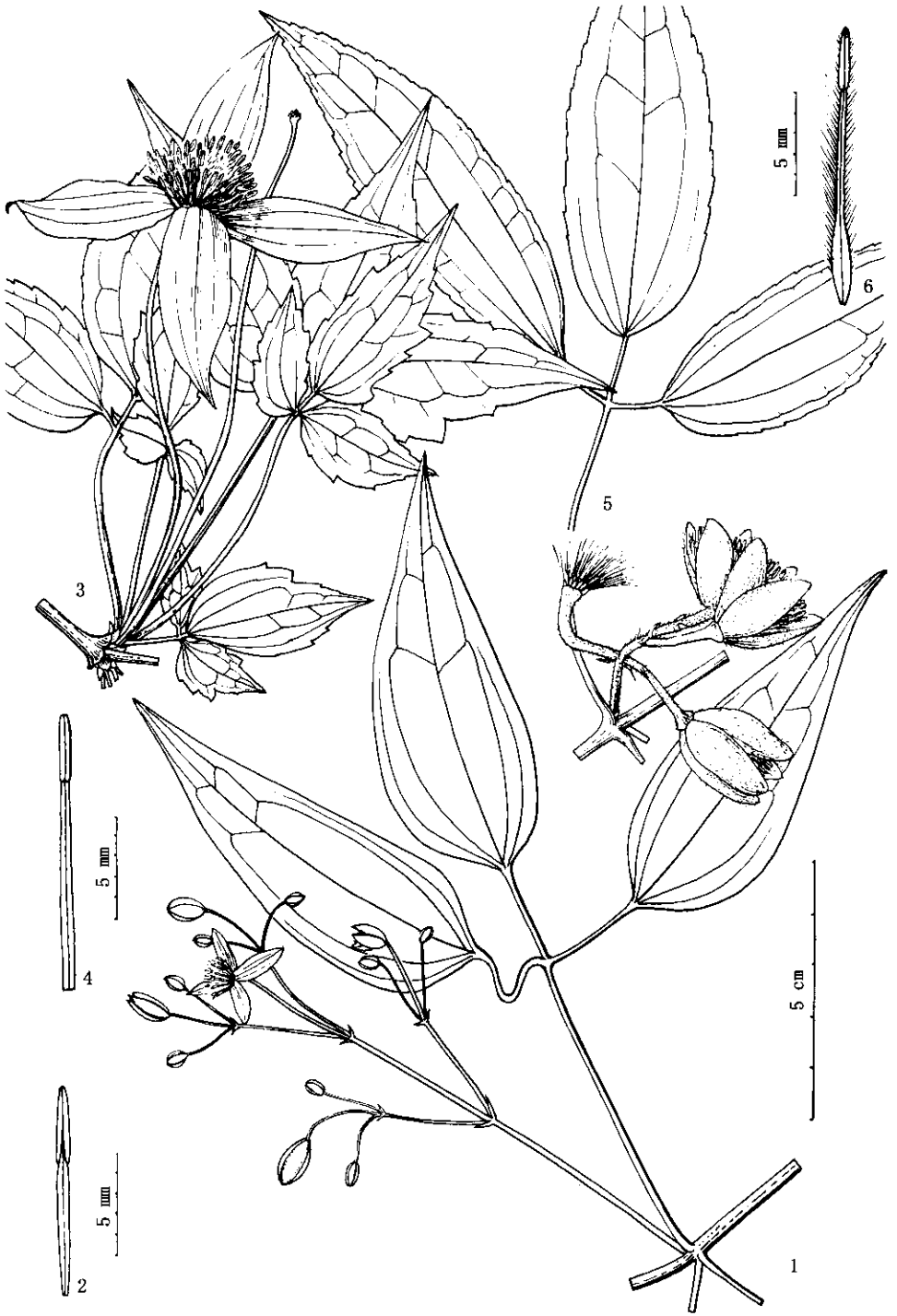

Fig. 2 1~2. *Clematis sinii* W. T. Wang 1. Flowering branch, 2. Stamen (from S. S. Sin 23329). 3~4. *C. wenshanensis* W. T. Wang 3. Flowering branch; 4. Stamen (from Y. M. Shui 2714). 5~6. *C. teretipes* W. T. Wang 5. Flowering branch; 6. Stamen (from Q. S. Zhao, J. B. Shi *et al*. 117518).

shorter petioles and pedicels, and purple-red sepals it obviously differs from the latter.

1.2 文山铁线莲 新种 图2：3～4

Clematis wenshanensis W. T. Wang, sp. nov. Fig. 2: 3～4

Arcte affinis *C. manipurensi* (Brühl) W. T. Wang et *C. wallichii* W. T. Wang; illa foliolis vulgo 2～3-lobulatis vel 2～3-lobatis, pedicellis pubescentibus, sepalis intus prope apicem puberulis extus dense pubescentibus secus marginem area velutina lata praeditis differt; haec foliolis angustioribus 0.6～1.3 cm latis apice acuminatis margine integris vel utrinque 1-denticulatis, sepalis minoribus oblanceolatis 2.1～2.2 cm longis 6～8 mm latis extus secus marginem puberulis ad marginem ipsum sparse puberulis haud velutinis.

Liana lignosa, 10 m longa. Rami subteretes, inconspicue 10-canaliculati, glabri. Folia ternata; foliola petiolulata, papyracea, ovata vel anguste ovata, 3.5～7 cm longa, 1.8～3 cm lata, apice acuminata vel longe acuminata, basi rotundata, margine dentata, indivisa vel lateralia interdum 2-lobulata, supra ad nervos sparsissime puberula, subtus sparse adpresseque puberula, nervis basalibus fere planis; petioli 2.4～4 cm longi. Flores vulgo 2 cum foliis 2-jugis e gemma axilari rami vetusti nascentes, 6.5～7 cm diametro; pedicelli 9～11 cm longi, sparsissime puberuli. Sepala 4, alba, patentia, ovato-oblonga, 3.3～3.7 cm longa, 1.1～1.6 cm lata, apice attenuata et breviter cuspidata, intus glabra, extus subglabra, ad marginem ipsum velutina. Stamina ca. 70, 7～14 mm longa, glabra, filamentis anguste linearibus, antheris linearibus vel anguste oblongis 2.5～3 mm longis apice obtusis. Carpella ca. 15, 9～12 mm longa, ovariis glabris, stylis 8～11 mm longis dense villosis.

China. **Yunnan** (云南): Wenshan (文山), Mt. Laojunshan (老君山), Leshichong village (乐诗冲乡), alt. 2650 m, scrambling upon forest on slope, vine 10 m tall, fl. white, 1993-05-07, Y. M. Shui (税玉民) 2714 (holotype, here designated, PE); same locality, Xiaoyantou (啸岩头), alt. 2430 m, in bamboo thickets on slope, vine, fl. buds dark-red, 1993-03-31, Y. M. Shui 1825 (PE).

This new species is closely related to *C. manipurensis* (Brühl) W. T. Wang of northeastern India and *C. wallichii* W. T. Wang of Nepal. From the former it differs in its usually undivided leaflets, sparsely puberulous pedicels, and sepals being outside subglabrous and on the very margins velutinous, and from the latter in its leaflets being broader (1.8～3 cm wide), at apex acuminate or long acuminate, at margin dentate, and in its sepals being larger, ovate-oblong in outline, 3.3～3.7 cm long, 1.1～1.6 cm wide, outside on the very margins velutinous.

In sect. *Cheiropsis*, *C. wenshanensis* is unique in its sepals with narrow velutinous margins. In other species of that section, the sepals are sparsely or densely puberulous or glabrous, and never velutinous on the very margins.

2 威灵仙组 Sect. **Clematis**.

2.1 密毛短尾铁线莲 新变种

Clematis brevicaudata DC. var. **malacotricha** W. T. Wang, var. nov.

A var. *brevicaudata* differt foliolis subtus dense sericeo-puberulis.

China. **Sichuan** (四川): Zoigê (若尔盖), Tiebu (铁布), alt. 2800 m, on small trees at village edge, sepals yellowish, 1960-08-09, P. K. Hsiao and T. K. Mi (肖培根,米泰康) 20305 (holotype, here designated, IMD).

This new variety is distinguished by its leaflets being abaxially densely sericeous-puberulous from var. *brevicaudata*, which has leaflets on both surfaces subglabrous or sparsely puberulous, and is wide-spread from Southwest China northeastwards through North China and Northeast China to eastern Siberia.

2.2 辛氏铁线莲 新种 图2: 1~2

Clematis sinii W. T. Wang, sp. nov. Fig. 2: 1~2

Affinis *C. meyenianae* Walp., quae foliolis crassioribus majoribus subcoriaceis vel crasse papyraceis ovatis vel oblongo-ovatis usque ad 14 cm longis et 9 cm latis apice acuminatis vel acutis, staminum omnium antheris apice minute apiculatis distinguitur.

Liana lignosa. Rami subteretes, vadose 8-canaliculati, sparsissime pilosi vel subglabri. Folia ternata; foliola petiolulata, tenuiter papyracea, anguste ovata vel late lanceolata, 7~8.8 cm longa, 2.5~3.4 cm lata, apice longe acuminata vel attenuata, basi rotundata, margine integra, utrinque glabra vel subtus prope basin ad costam mediam sparsissime pilosa, nervis basalibus subtus leviter prominentibus; petioli 5.5~6.8 cm longi. Cymae axillares ca. 10-florae, plus minusve paniculiformes; pedunculi 4.4~4.8 cm longi, subglabri; bracteae triangulares, ca. 3.5 mm longae, sparse ciliolatae. Flos ca. 1.2 cm diametro; pedicellus gracilis, 1.2~2.2 cm longus, sparse adpresseque puberulus. Sepala 4, oblonga, ca. 11 mm longa, 4 mm lata, apice acuta, utrinque glabra, extus ad marginem velutina, 5-nervia. Stamina ca. 40, 5~8 mm longa, glabra, filamentis anguste linearibus, antheris linearibus 3.2~3.8 mm longis apice plerumque obtusis interdum inconspicue minuteque apiculatis. Carpella ca. 12, ovariis dense puberulis, stylis ca. 6 mm longis dense villosis.

China. Guangxi (广西): Mt. Dayaoshan (大瑶山), Kuchun, 1937-06-27, S. S. Sin (辛树帜) 23329 (holotype, here designated, IBSC).

This new species is related to *C. meyeniana* Walp., and differs from the latter in its thinner smaller narrowly ovate long acuminate or attenuate leaflets and in its anthers being for the most part obtuse, occasionally minutely apiculate at apex.

This species is named in honor of the collector, the late Professor S. S. Sin, who explored the Mt. Dayaoshan, Guangxi Province, four times in 1928, 1929, 1931, and 1934 (Lee & Liang, 1990), and made important plant collections including the new discovery of the monotypic genus *Sinia* Diels (合柱金莲木属 *Ochnaceae*).

2.3 威灵仙

Clematis chinensis Osbeck, Dagbok Ostind. Resa 204, 242. 1757; et Voy. China & East Ind. 1: 393. 1771; Bretschneid. Fl. China 91. 1881; Rehd. in J. Arn. Arb. 14: 200. 1933; Merr. in Trans. Amer. Philos. Soc. Philad. 24(2): 154. 1935; Hand.-Mazz. in Acta Hort. Gotob. 13: 206. 1939; Péi in Sunyatsenia 4: 165. 1940; Tamura in Acta Phytotax. Geobot. 15: 19. 1953; Lauener & Green in Not. R. Bot. Gard. Edinb. 23(4): 580. 1961; How & W. T. Wang in Fl. Hainan. 1: 305. 1964; Hatusima, Fl. Ryukyus 277. 1971; Iconogr. Corm. Sin. 1: 746, fig. 1491. 1972; Fl. Tsinling. 1(2): 293. 1974; Walker, Fl. Okinawa & S Ryukyu Isls. 462. 1976; Fl. Hupeh. 1: 367. 1976; Liu & Hsieh in Fl. Taiwan 2: 483. 1976; M. C. Chang in Fl. Reip. Pop. Sin. 28: 161. 1980; Ding *et al*. Fl. Henan. 1: 456. 1981; Fl. Jiangsu. 2: 173. fig. 1000. 1982; Tamura in Satake *et al*. Wild Flow. Jap. 2: 74. 1982; C. Y. Wu, Ind. Fl. Yunnan. 1: 107. 1984; S. R. Lin & X. Z. Zhao in Fl. Fujian. 2: 24. 1985; Y. K. Li in

Fl. Guizhou. 3: 54. 1986; X. W. Wang in Fl. Anhui 2: 336. fig. 643. 1986; W. T. Wang in Fl. Guangxi 1: 287. 1991; Z. H. Lin in Fl. Zhejiang 2: 294. 1992; W. T. Wang in Keys Vasc. Pl. Wuling Mount. 167. 1995; T. Y. Yang & T. C. Huang in Taiwania 40 (3): 214. fig. 3. 1995; et in Fl. Taiwan. ed. 2. 2: 518. pl. 240. 1996; M. Johnson, Klematis 627. 1997; W. T. Wang in Fl. Yunnan. 11: 227. 2000; K. M. Liu in Fl. Hunan 2: 689. 2000. TYPE: China. Guangdong, Canton, 1751, Osbeck s. n. (holotype, S!).

C. chinensis Retz. Obs. Bot. 2: 18, t. 2. 1791; DC. Syst. 1: 137. 1818; Prodr. 1: 3. 1824; Forb. in J. Bot. 22: 262. 1884; Forb. & Hemsl. in J. Linn. Soc. Bot. 23: 3. 1886; Pritz. in Bot. Jahrb. 29: 332. 1900; Finet & Gagnep. in Bull. Soc. Bot. France 50: 535. 1903, p. p.; et in Lecomte, Fl. Gén. Indo-Chine 1: 5. 1907. ——*C. recta* L. ssp. *chinensis* (Retz.) Kuntze in Verh. Bot. Ver. Brand. 26: 114. 1885. TYPE: China. Canton vel Macao, 1771, Bladh s. n. (holotype, not seen).

C. sinensis Lour. Fl. Cochinch. 345. 1790. TYPE: China. no type specimen designated.

C. minor Lour. l. c.; DC. Syst. 1: 136. 1818; Forb. in J. Bot. 22: 263. 1884. TYPE: China. no type specimen designated.

C. longiloba DC. Syst. 1:136. 1818. TYPE: China. Staunton s. n. (holotype, not seen).

C. benthamiana Hemsl. in J. Linn. Soc. Bot. 23: 2. 1886, nom. nud. SYNTYPES: China. Zhejiang, Ningbo, Forbes 819 (BM!); Putuo, Carles s. n. (BM!). Fujian, Xiamen, Fortune A89 (K! P!).

C. funebris Lévl. & Van. in Bull. Acad. Intern. Geogr. Bot. 11: 168. 1902. TYPE: China. Guizhou, Ganpin, 1897-08-09, Martin & Bodinier 1787 (holotype, E! isotype, P!).

C. oligocarpa Lévl. & Van. in Bull. Acad. Intern. Geogr. Bot. 17 (no. 210 ~ 211): ii. 1907. TYPE: China. Guizhou, Pinfa, 1902-08-20, Cavalerie 2490 (holotype, E! isotypes, GH! K!).

C. cavaleriei Lévl. & Port. in Repert. Sp. Nov. 9: 20. 1910. TYPE: China. Guizhou, Lofou, 1909-03, Cavalerie 3582 (holotype, E! isotypes, GH! K!).

C. liukiuensis Warb. in Repert. Sp. Nov. 16: 352. 1920. TYPE: Japan. Ryukyu Isls., 1887-09, Warburg s. n. (holotype, not seen).

C. chinensis is characterized by the whole plants turning black when drying, and moderately compressed and not conspicuously marginate achenes. It consists of five varieties wide-spread in the subtropical regions of eastern Asia.

Varietatum clavis diagnostica

1. Rami glabri vel sparsissime puberuli; foliola utrinque tantum ad nervos basales sparsissime puberula, glabrescentia vel subglabra.
   2. Folia pinnata, foliolis ovatis anguste ovatis vel lanceolatis.
      3. Sepala 4, 6 ~ 13 mm longa, 1.8 ~ 3 (~ 4) mm lata; inflorescentiae axillares plerumque multiflorae, paniculiformes ····· 2.3a. var. **chinensis**
      3. Sepala majora, (8 ~)10 ~ 22 mm longa, (2 ~)3 ~ 5 mm lata.
         4. Inflorescentiae axillares (3-) multiflorae, vulgo paniculiformes; sepala 4(~ 5 ~ 6), (8 ~)10 ~ 22 mm longa, (2 ~)3 ~ 5 mm lata ····· 2.3b. var. **fujisanensis**
         4. Inflorescentiae axillares 1 (~ 3)-florae; sepala 4, 10 ~ 20 mm longa, ca. 4 mm lata ····· 2.3c. var. **anhweiensis**

2. Folia bipinnata, foliolis lanceolatis vel anguste ovatis; sepala 4, 8 ~ 15 mm longa, 2 ~ 4 mm lata ····· 2.3d. var. **bipinnata**

1. Rami et foliola subtus plus minusve dense puberula, ovata vel lanceolata; folia pinnata; sepala 4, 6 ~ 9 mm longa, 2 ~ 3 mm lata ····· 2.3e. var. **vestita**

2.3a Var. **chinensis**

China. **Anhui**: Mt. Huangshan, K. C. Kuan 75242 (PE); Mt. Jiuhuashan, R. C. Ching 8418 (GH); Qianshan, C. S. Fan 177 (GH); Huoshan, Anhui Exped. 59-50042 (PE); Chu Xian, Anhui Exped. 59-250 (ANUB). **Fujian**: Xiamen, G. D. Ye 692 (PE); Nanping, P. C. Tsoong 347 (PE); Jianyang, Z. P. Jian *et al*. 400313 (PE). **Guangdong**: Zhaoqing, G. L. Shi 13187 (PE); Mt. Dinghushan, Y. Tsiang 1484 (GH); Guangzhou, W. Y. Chun 5460, 7860 (PE), Sampson 1476 (GH); Shantou, Q. J. Liang 1307 (PE); Wengyuan, S. K. Lau 24274 (PE); Ruyuan, W. Y. Chun 10903 (PE); Yangshan, T. M. Tsui 646 (GH, K, PE). **Guangxi**: Yulin, Y. Z. Lin 315 (PE); He Xian, S. Q. Zhong 62730 (PE); Yangshuo, R. H. Shan 580 (PE); Guilin, W. T. Tsang 27986 (GH). **Guizhou**: Anlong, Guizhou Exped. 58-5854 (PE); Luodian, S Guizhou Exped. 59-384 (PE); Lofou, Cavalerie 3580 (K); Chishui, Bijie Exped. 59-1361 (PE); Shibing, Wulingshan Exped. 88-3473 (PE). **Hainan**: Changjiang, H. Y. Liang 66160, 66336 (GH, PE). **Henan**: Shangcheng, Henan Exped. 59-8105 (PE); Mt. Jigongshan, Steward 9743 (US), 9807 (K), X. Q. Zhang 20017 (PE); Xin Xian, Xin Xian Exped. 869 (PE). **Hongkong**: K. K. Tsoong 655A (PE), H. C. Tang 2033 (GH). **Hubei**: Changyang, E. H. Wilson 1988 (K); Yichang, Henry 1601, 4328 (K), E. H. Wilson 2477 (GH, K); Fang Xian, K. M. Liou 9188 (PE); Xingshan, G. X. Fu 265 (PE); Wuchang, H. H. Chung 9107 (GH); Without precise localities, Henry 1601, 4328, 4348, E. H. Wilson 1306, 1679, 2473 (GH). **Hunan**: Yizhang, S. C. Chen 2373 (PE); Lingling, Handel-Mazzetti 11278 (GH); Dongan, Y. Liu 657 (PE); Xinhua, Handel-Mazzetti 12563 (GH); Mt. Hengshan, P. C. Tsoong 1346, Y. Liu 601 (PE); Changsha, Med. Exped. 104 (HUTM). **Jiangsu**: Yixing, S. S. Mao 3941 (PE); Suzhou, H. X. Ye 1049 (PE); Wuxi, H. B. Zhou 2573 (PE). **Jiangxi**: Guangfeng, M. X. Nie 5678 (PE); Guixi, M. X. Nie 3941 (PE); Nanchang, H. H. Hu 1550 (GH, K); Mt. Lushan, H. H. Hu 2550, K. C. Kuan 74283 (PE), E. H. Wilson 1550 (GH, K); Xioushui, S. S. Lai 2957 (PE); Wuning, S. S. Lai 2819 (PE). **Shaanxi**: Hanzhong, J. W. Wang s. n. (PE). **Sichuan**: Jiading, E. H. Wilson 1357 (GH, K); Hanyuan, T. P . Wang 8950 (PE); Luoshan, F. T. Wang 23548 (GH, PE); Mt. Emei, W. P. Fang 3340 (GH, K, PE), D. H. Du 862 (PE); Yaan, T. P. Wang 8578 (PE); Guan Xian, Z. L. Wu 33753 (PE). **Taiwan**: Taizhong, T. Y. Yang *et al*. 2232 (PE); Taidong, H. Keng 1373 (US); Miaoli, T. C. Huang 12673 (GH); Nantou, T. Y. Yang *et al*. 5880 (PE); Hualian, Tamura *et al*. 21746 (KYO); Taibei, Tamura & Koyama 23492 (PE); without precise localities, Swinhoe 54, Henry 189A (K). **Yunnan**: Menghan, K. M. Feng 20758 (PE). **Zhejiang**: Jiande, Zhejiang Exped. 29406 (HHBG); Changhua, Y. Y. Ho 23993 (PE); Hangzhou, T. Tang & W. Y. Hsia 206 (GH); Dinghai, S. Chen 4148 (PE); Ningbo, Faber s. n. (K); Pingyang, R. C. Ching 1997 (US).

Japan. Ryukyu Isls., Furuse 3301, 3343, 4632 (K).

Vietnam. Tonkin, Cho-gauh, Petelot 1152 (GH); Annam, Mai-lank, Poilane 10192 (GH).

Distribution: China (S Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hainan, S Henan,

Hongkong, Hubei, Hunan, S Jiangsu, Jiangxi, S Shaanxi, Sichuan, Taiwan, S Yunnan, Zhejiang). Japan (Ryukyu Isls.). Vietnam.

2.3b Var. **fujisanensis** (Hisauti & Hara) W. T. Wang, st. et comb. nov. ——*C. fujisanensis* Hisauti & Hara in J. Jap. Bot. 15: 180. 1939; Ohwi, Fl. Jap. 516. 1953, in Japanese & Eng. Ver. 443. 1965; Kitamura & Murata, Colour. Ill. Herb. Pl. Jap. rev. ed. 227. fig. 102: 5. 1980; Tamura in Satake *et al*. Wild Flow. Jap. 2: 74. 1982; M. Johnson, Klematis 628. 1997. TYPE: Japan. Omiyaguti, ca. 1000 m, 1932-08-23, Hisauti s. n. (syntype, TI, not seen); Prov. Sagami, Mt. Oyama, 1932-10-23. Hisauti s. n. (syntype, TI, not seen; isosyntype, GH!).

C. kyushuensis Tamura in Acta Phytotax. Geobot. 15(1): 19. 1953; M. Johnson, Klematis 629. 1997. TYPE: Japan. Prov. Satsuma, Ohsumi, Gumamura, 1915-09-12, Tashiro s. n. (holotype, KYO!).

Japan. Ohsumi, Tashiro s. n. (KYO); Fukuka, Chikugo, Masatomi 76647 (KYO); Mt. Fuji, Hisauti s. n. (GH, TI); Tokyo, Mt. Kawanori, Midorikawa s. n. (TI); Sagami, Mt. Kintoki, Mizushima 1565 (TI); Sigami, Mt. Oyama, Hisauti s. n. (GH); Suruga, Momiyama 1091 (TI); Satsuma, Tashiro s. n. (KYO); Osumi. Tashiro s. n. (KYO); Kumamoto, Mikge 7690 (KYO).

Distribution: Japan (Kyushu, S Honshu).

C. fujisanensis differs from *C. chinensis* mainly in its larger flowers. However, sometimes its flowers have the same size as those of *C. chinensis*, so I think that it is better to treat *C. fujisanensis* as a variety under the latter. Accordingly, the close ally of *C. fujisanensis*, *C. anhweiensis*, is sunken to varietal rank under *C. chinensis* too.

2.3c Var. **anhweiensis** (M. C. Chang) W. T. Wang, st. et comb. nov. ——*C. anhweiensis* M. C. Chang in Fl. Reip. Pop. Sin. 28: 162. pl. 48. 1980; X. W. Wang in Fl. Anhui 2: 337. fig. 644. 1986; Z. H. Li in Fl. Zhejiang 2: 294. fig. 2-391. 1992; M. Johnson, Klematis 627. 1997. TYPE: China. Anhui, Guichi, alt. 200 m, 1959-07-01, Guichi Exped. 7022 (holotype, NAS!); Shexian, Anonymous 2234 (paratype, not seen).

China. **Zhejiang**: Jiande, Zhejiang Exped. 58-29406 (PE).

Distribution: China (S Anhui, W Zhejiang).

2.3d Var. **bipinnata** (Tamura) W. T. Wang, comb. nov. ——*C. kyushuensis* Tamura var. *bipinnata* Tamura in Acta Phytotax. Geobot. 16(3): 79. 1956. TYPE: Japan. Kyushu, Prov. Hiuga, Mera-mura, 1920-08, Tashiro s. n. (holotype, KYO!).

Japan. Higo: Kamagun, Hatushima 23954 (KYO); Satsuma, Ichiiki s. n. (KYO).

Distribution: Japan (Kyushu).

2.3e 毛叶威灵仙 变种

Var. **vestita** (Rehd. & Wils.) W. T. Wang in Acta Phytotax. Sin. 36 (2): 158. 1998. ——*C. chinensis* Retz. f. *vestita* Rehd. & Wils. in Sarg. Pl. Wils. 1: 330. 1913; Bailey in Gent. Herb. 1: 23. 1920; Rehd. in J. Arn. Arb. 4: 185. 1923; Hand.-Mazz. in Acta Hort. Gotob. 13: 206. 1939; M. C. Chang in Fl. Reip. Pop. Sin. 28: 162. 1980; Fl. Jiangsu. 2: 173. 1982; X. W. Wang in Fl. Anhui. 2: 337. 1986; Z. H. Lin in Fl. Zhejiang. 2: 295. 1992. TYPE: China. Hubei, Yichang, 300～1100 m, 1907-06, E. H. Wilson 2474 (holotype, GH! isotypes, K! US!).

China. **Anhui**: Hefei, H. R. Zhou 163 (ANUB); Fengyang, Anhui Exped. 59-170 (PE). **Henan**: Miyang, Henan Exped. 59-30718 (PE). **Hubei**: Wuchang, X. Z. Sun 1811 (HIB). **Shaanxi**: Yangxian, T. N. Liou & P. C. Tsoong 3933 (PE); Hanzhong, J. W. Wang s. n. (PE). **Zhejiang**: Zhuji, K. L. Chen 1450 (PE).

Distribution: China (Anhui, S Henan, Hubei, S Jiangsu, S Shaanxi, Zhejiang).

3 单性铁线莲组 Sect. **Aspidanthera** Spach.

3.1 Clematis dimorphophylla W. T. Wang, sp. nov. Fig. 3: 3~5

Affinis *C. malacocomae* W. T. Wang, quae foliis omnibus ternatis, foliolis textura crassioribus coriaceis cordato-ovatis vel anguste ovatis apice longe acuminatis vel caudato-acuminatis basi subcordatis vel cordatis subtus densissime puberulis, petiolis longioribus (5.4~8.2 cm longitudine), cymis pistillatis 5~7-floris haud paniculiformibus, pedunculis brevioribus 1.7~2.8 cm longis facile differt.

Liana herbacea, dioica. Rami graciles. ca. 2 mm diametro, vadose 8~10-canaliculati, puberuli. Folia simplicia vel ternata; ea simplicia herbacea, inaequilateria, late ovata vel deltoidea, 3.4~4.2 cm longa, 3.2~4.4 cm lata, apice acuta vel breviter acuminata, basi subtruncata, margine denticulata, denticulis mucronulatis, 3-lobulata, utrinque adpresse puberula, nervis basalibus subtus fere planis, petiolis 1.5~2.1 cm longis puberulis; foliola foliorum ternatorum ovata vel anguste ovata, 3~6 cm longa, 1.5~2.8 cm lata, apice acuminata, basi rotundata, margine repando-dentata vel denticulata, petiolis foliorum ternatorum 4~5 cm longis puberulis. Cymae staminatae axillares 9~27-florae, saepe paniculiformes; pedunculi 3.5~8.2 cm longi, densiuscule puberuli; bracteae petiolatae, ovatae, 0.9~1.5 cm longae, margine sparse denticulatae, vel sessiles, anguste obovatae, ca. 4.5 mm longae, apice 3-dentatae. Flos staminatus 1.2~1.4 cm diametro; pedicellus gracilis, 1.4~2 cm longus, densiuscule puberulus; sepala 4, patentia, anguste oblonga vel obovato-oblonga, 6~7 mm longa, 1.6~2.8 mm lata, apice obtusa, utrinque adpresse puberula, extus ad marginem velutina; stamina 32~40, 3~5.5 mm longa, glabra, filamentis anguste linearibus, antheris oblongis 0.6~0.9 mm longis apice obtusis. Cymae pistillatae axillares 9~11-florae, paniculiformes; pedunculi 4~8.2 cm longi, puberuli; bracteae sessiles, obovato-lineares, 3~4 mm longae, apice 3-denticulatae. Flos pistillatus 1.1~1.4 cm diametro; pedicellus gracilis, 1.4~2.4 cm longus, densiuscule puberulus; sepala 4, patentia, eis floris staminati similia, 6~7.5 mm longa, 1.5~2.5 mm lata; staminodia 23~30, 6~7 mm longa, glabra, filamentis anguste linearibus, antheris sterilibus oblongis 0.4~0.5 mm longis; carpella 16~20, 6~7.5 mm longa, ovariis puberulis, stylis 6~7 mm longis dense villosis.

Mexico. Prov. Huasteca: Wartenberg near Tantoyuca, 1858, L. C. Ervendberg 214 (holotype, here designated, P).

This new species is somewhat related to *C. malacophylla* W. T. Wang, differing from the latter in its simple and ternate leaves, thinner, herbaceous, acute or shortly acuminate, more sparsely puberulous leaflets, shorter petioles and 9~11-flowered panicle-like cymes. In *C. malacophylla*, the leaves are all ternate, the leaflets are thicker, coriaceous in texture, long-acuminate or attenuate at apex, abaxially very densely puberulous, the petioles are longer, 5.4~8.2 cm long, and the pistillate cymes are 5~7-flowered, not panicle-like.

3.2 Clematis plukenetii DC. Syst. 1: 153. 1818; Prodr. 1: 7. 1824. ——*C. dioica* L. ssp. *catesbyana* (Pursh) Kuntze var. *plukenetii* (DC.) Kuntze in Verh. Bot. Ver. Brand. 26: 104.

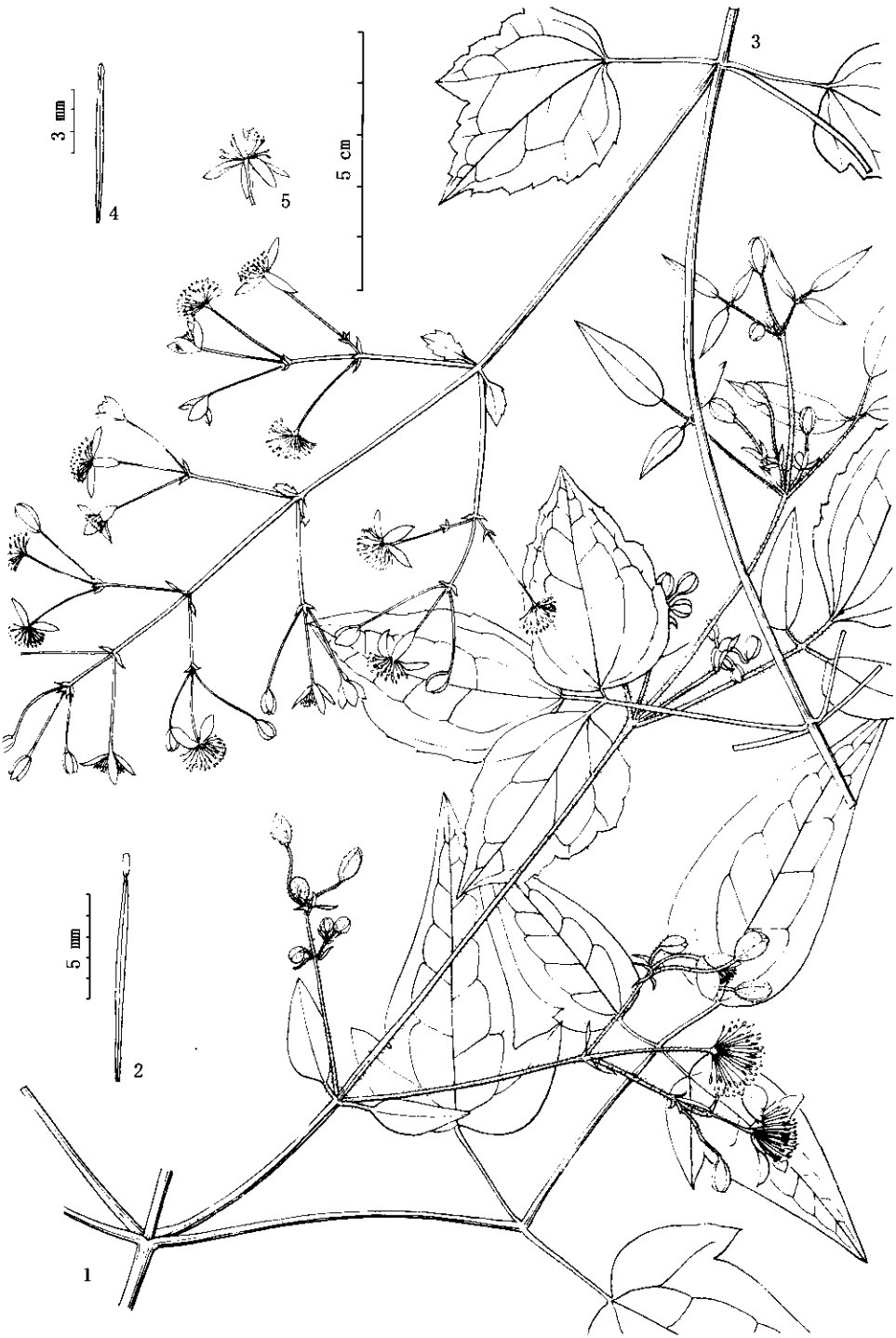

Fig. 3 1~2. *Clematis campestris* St. Hilaire var. *malacophylla* W. T. Wang 1. Staminate Flowering branch; 2. Stamen (from Krapovickas & Schinini 30413). 3~5. *C. dimorphophylla* W. T. Wang 3. Staminate flowering branch; 4. Stamen; 5. Pistillate flower (from Ervendberg 214).

1885. TYPE: Bahamas. 1723, Catesby s. n. (holotype, BM!).

C. dioica L. ssp. *virginiana* (L.) Kuntze var. *bahamica* Kuntze in l. c. 102, syn. nov. ——*C. bahamica* (Kuntze) Britton in Bull. New York Bot Gard. 4: 117. 1906, syn. nov. TYPE: Bahamas. Eleuthera, 1879-10, Brace 391 (holotype, K!).

C. orbiculata Correll in J. Arn. Arb. 58: 40. fig. 1. 1977, syn. nov. TYPE: Bahamas. Great Exuma, 1975-01-10, Correll 44074 (holotype, GH!).

C. catesbyana auct. non Pursh: M. Johnson, Klematis 473. 1997, p. m. p., quoad syn. *C. plukenetii* DC.

Bahamas. Abaco, Brace 1594 (K, US), Gillis 7361 (GH); Andros, Small & Carter 8579 (K, US), Correll & Proctor 47781 (US); Mariguana, P. Wilson 7503 (GH, K), 7582 (GH, K); Mayaguana, Bryne 410 (GH).

Dominica. La Loma Torro, Phillips 46 (K).

Distribution: Bahamas, Dominica.

In Johnson's recent monograph (1997), *C. dioica* L. ssp. *catesbyana* var. *plukenetii* (DC.) Kuntze, *C. dioica* ssp. *virginiana* var. *bahamica* Kuntze, *C. bahamica* (Kuntze) Britton, and *C. orbiculata* Correll were not included, and *C. plukenetii* DC. was reduced into the synonymy of *C. catesbyana* Pursh of southeastern United States. However, *C. plukenetii* with pinnate and ternate leaves, smaller usually entire leaflets, 1.5 ~ 5.8 cm long, 0.5 ~ 3.8 cm wide, and inside glabrous sepals of staminate flower is distinctly different from *C. catesbyana*, and should be recognized as a good species. In *C. catesbyana*, the leaves are biternate and pinnate, the leaflets are often larger, 2 ~ 9 cm long, 1.5 ~ 9 cm broad, dentate at margin, and the sepals of staminate flower are puberulous inside.

3.3 Clematis acapulcensis Hook. & Arn. Bot. Beech. Voy. 410. 1841; M. Johnson, Klematis 471. 1997. ——*C. dioica* L. ssp. *acapulcensis* (Hook. & Arn.) Kuntze in Verb. Bot. Ver. Brand. 26: 104. 1885. TYPE: Mexico. Acapulco, 1838-01, Sinclair 1042 (holotype, K!).

C. brasiliana DC. var. *laxa* St. Hilaire, Fl. Bras. Merid. 1: 2. 1824, syn. nov. TYPE: Brazil. Rio de Janeiro, Encruciada, 1816 ~ 1821, St. Hilaire 1 (holotype, P!).

C. perulata Kuntze in Verh. Bot. Ver. Brand. 26: 153. 1885, syn. nov. TYPE: Brazil. Rio Grande, 1833, Gaudichaud 1162 (syntype, P!); Sello 2866 (syntype, K!).

C. barrancae Jones in Contr. West. Bot. no. 18: 35. 1933, syn. nov. TYPE: Mexico. Guadalajara, La Barranca, 1930-11-05, Jones 27028 (holotype, not seen; isotypes, BM! GH! MO!).

C. dioica L. var. *australis* auct. non Eichler: Lourteig in Darwiniana 9(3 ~ 4): 419. 1951, p. p. quoad St. Hilaire 1, Hassler 10465, 10843.

3.3a Var. **acapulcensis** Fig. 4: 1 ~ 3

Foliola utrinque subglabra, glabra, vel sparse puberula, pilis albidis 0.2 ~ 0.5 mm longis.

Mexico. Acapulco, Palmer 608 (GH, K, MO, US); Adama, Mexia 8897 (K, MO); Caleana, Hinton 11014 (GH, K, P, US); Cerro Colorado, Geutry 5132 (GH); Coalcoman, Hinton 12502, 16187 (K); Colima, Palmer 1113 (K); Manzanillo, Palmer 992 (GH, K); Michoocan, King & Soderstrom 4973 (US); Morathan, Ortega 7469 (MO); Oaxaca, Pringle 6004 (GH, K, P, US); Orizaba, Bourgeau 277 (P), 3280 (GH); Temascaltepec, Hinton 2203 (K).

Guatemala. Salama, Maxon 3386 (GH); Santa Rosa, Heyde 4305 (GH).

Salvador. Ahuachapan, Standley 19910 (GH); Santa Lucia, Padilla 199 (MO).

Nicaragua. Amatitlan, Heyde 4207 (GH); Esteli, Moreno 18140 (MO); Madriz, Stevens 15988 (MO); Metagalpa, Stevens 11808 (MO); Mechapa, Nichols 1001 (MO); Quesalquaque, Baker 5 (GH).

Costa Rica. Cartago, Cooper 5702 (GH); Guadalupe, A. Smith 2209 (GH); Rio Virilla, Allen 274 (GH); San José, Tonduz 6968 (G, K); San Francisco, Pithler & Tonduz 1577 (G, K, P); Zarcero, A. Smith A656 (GH).

Panama. Anton, Hunter 367 (MO); Chiriqur, Tyson 28, White 107 (MO).

Colombia. Magdalena, Cuatrecasas 24975 (P), Haught 3789 (K).

Brazil. Agua Azul, Rambo 7182 (US); Alegre, Czermak & Reineck 361 (G); Amazonas, Ducke 1585 (GH).

Paraguay. Caazapa, Molas 728, Zardini 2968 (P); Hernandarias, Schinini 27372 (GH); Mocizo Acahay, Zardini 4707 (P); Sierra de Amambay, Hassler 10465 (G, GH, P), 10843 (G).

Argentina. Fracran, Hunziker 963 (MO); Santo Pipo, Schwarz 4681 (MO).

Distribution: Mexico, Guatemala, Honduras, Salvador, Nicaragua, Costa Rica, Panama, Colombia, Brazil, Paraguay, Argentina.

In Johnson's monograph (1997), *C. brasiliana* DC. var. *laxa* St. Hilaire was not included; *C. perulata* Kuntze was erroneously treated as synonymous with *C. dioica* L. var. *australis* Eichler (= *C. affinis* St. Hilaire, see below) with leaflets abaxially velutinous or densely puberulous; and *C. barrancae* Jones with bipinnate leaves was erroneously reduced into the synonymy of *C. dioica* L. with ternate leaves.

3.3b Var. **puberula** W. T. Wang, var. nov.

C. dioica L. var. *australis* auct. non Eichler: Lourteig in Darwiniana 9(3 ~ 4): 419. 1951, p. p, quoad Gaudichaud 1056 et Claussen 123.

Foliola supra subglabra, subtus tota pagina densiuscule adpresseque puberula, pilis albidis 0.2 ~ 0.5 (~ 0.6) mm longis inter se separatis.

Brazil. Rio de Janeiro, 1833, Gaudichaud 1056 (holotype, here designated, G; isotype, P); same locality, 1839, Guillemin 1014 (G); Leopoldo, 1946-11-10, Rambo 35697 (Mo); Minas Geraes, Claussen s. n. (G); Nouvelle Fribouro, 1842-10, Claussen 123 (G); Parana, 1966-05-10, Lindeman & Haas 1283 (GH); Sao Paulo: Caraguatatuba, in virgin forest, 1961-05-20, G. Eiten & L. T. Eiten 2841 (US); without precise locality, 1840, Claussen 240 (G).

Venezuela. Mocquerys, P no. P00146897 (P).

C. acapulcensis consists of two varieties, different from each other by leaflet indumentum. In var. *acapulcensis*, the leaflets are subglabrous or sparsely puberulous on both surfaces; whereas in var. *puberula*, newly described here, the leaflets are adaxially subglabrous, abaxially rather densely appressed-puberulous on the entire surface.

In having bipinnate leaves, entire leaflets, and similar floral structure, *C. acapulcensis* is closely related to *C. affinis* (see below), differing from the latter in its leaflets being ovate, elliptic, or narrowly ovate in outline, abaxially subglabrous, glabrous, or sparsely (var. *acapulcensis*) or rather densely (var. *puberula*) whitish-puberulous, with hairs 0.2 ~ 0.5 (~ 0.6) mm long and separated from each other, and in elliptic or long elliptic achenes. In *C. affinis*, the leaflets are usually oblong-elliptic or oblong-ovate in outline, abaxially yellowish-velutinous or densely yellowish-puberulous, with hairs (0.3 ~) 0.5 ~ 1 mm long and more or less interwoven mutually, and the

achenes are broadly ovate in outline.

Lourteig (1951) misidentified the South American specimens of var. *acapulcensis* and those of var. *puberula* all as *C. dioica* var. *australis* Eichler (= *C. affinis*, see below).

3.4 Clematis affinis St. Hilaire, Fl. Bras. Mer. 1: 2. 1824. TYPE: Brazil. Minas Geraes: Onca, 1816-1821, St. Hilaire 2 (holotype, P!). Fig. 4: 4~6

C. fluminensis Vell. Fl. Flumin. 1: 24a. 1825; 5: t. 133. 1827. TYPE: Brazil. Rio de Janeiro, no type specimen designated.

C. dioica L. var. *australis* Eichler in Mart. Fl. Bras. 13(1): 147. 1864; Lourteig in Darwiniana 9 (3~4): 419. 1951, p. p. excl. St. Hilaire 1, Hassler 10465, 10843, Gaudichaud 1056, Claussen 123; Fl. Uruguay 4. fig. 1A. 1963; et in Reitz, Fl. Ilustr. Catarin. 1: 13, pl. 2: B. 1966; M. Johnson, Klematis 477. 1997, p. p. excl. syn. *C. perulata* Kuntze et *C. uruguayensis* Arech. TYPE: Brazil. 'in Brasiliae provinciis austro-orientalibus', no type specimen designated.

C. discolor Gardn. in J. Bot. 2: 330. 1843, syn. nov. TYPE: Brazil. Riode Janeiro, Imbuhy, alt. 914 m (3000 ft.), 1838-03, Gardner 302 (holotype, BM! isotypes, GH! K!).

C. dioica L. var. *brasiliana* auct. non (DC.) Eichler: Lourteig in Darwiniana 9 (3~4): 418. 1951, p. m. p. quoad Dusen 14515; et in Reitz, Fl. Ilustr. Catarin. 1: 11. 1966, p. p. quoad syn. *C. discolor* Gardn.; M. Johnson, Klematis 477. 1997, p. p. quoad syn. *C. discolor* Gardn.

Brazil. Parana, Dusen 14515 (MO, US), Koczzki 53 (P), Kummrow 822 (MO), Silva 96 (G); Rio de Janeiro, Kallunki & Pirani 676 (G); Rio Grande de Sul, Pedersen 15759 (G); Santa Catarina, Reitz & Klein 6660 (P), Klein 7203 (P); Santa Antonio, Glaziou 5722 (P); Serra do Caete, Hatschbach 42209 (US); Serra do Mar, Braga 549 (US); without precise locality, Glaziou 18121 (G).

Distribution: Brazil.

Since its publication in 1824, *C. affinis* St. Hilaire has long been treated as one of the varieties of *C. dioica* L., or sometimes was misidentified as *C. dioica* var. *brasiliana* (DC.) Eichler (see literature cited above). However, it is obviously distinguished from *C. dioica* L. and *C. brasiliana* DC. [*C. dioica* L. var. *brasiliana* (DC.) Eichler] by its bipinnate leaves and abaxially velutinous or densely puberulous leafletes, and should be recognized as an independent species. In *C. dioica* L., the leaves are ternate and glabrous, and in *C. brasiliana* DC., the leaves are once pinnate, and the leaflets are subglabrous or sparsely puberulous.

3.5 Clematis campestris St. Hilaire var. **malacophylla** W. T. Wang, var. nov. Fig. 3: 1~2

A var. *campestri* differt foliolis tenuioribus textura herbaceis supra adpresse puberulis subtus dense adpresseque sericeo-puberulis.

Argentina. Salta: Ruta Salta, fl. white, 1977-03-22, Krapovickas & Schinini 30413 (♂, here designated, holotype, G).

Var. *campestris* is common and wide-spread in Argentina, Bolivia, Brazil, Paraguay and Uruguay, and is variable in shape of leaflets, which are from lanceolate and lanceolate-linear to ovate and broadly ovate in outline, undivided or 2~3-lobed. It is distinguished from the new var. *malacophylla* by its thicker, papery or coriaceous, subglabrous or sparsely puberulous leaflets.

3.6 Clematis obtusifolia R. Brown, sp. nov., in herb. BM. Fig. 5: 3~6

Fortasse affinis *C. clitorioidi* DC., quae foliolis majoribus ovatis vel lanceolatis usque ad 6 cm

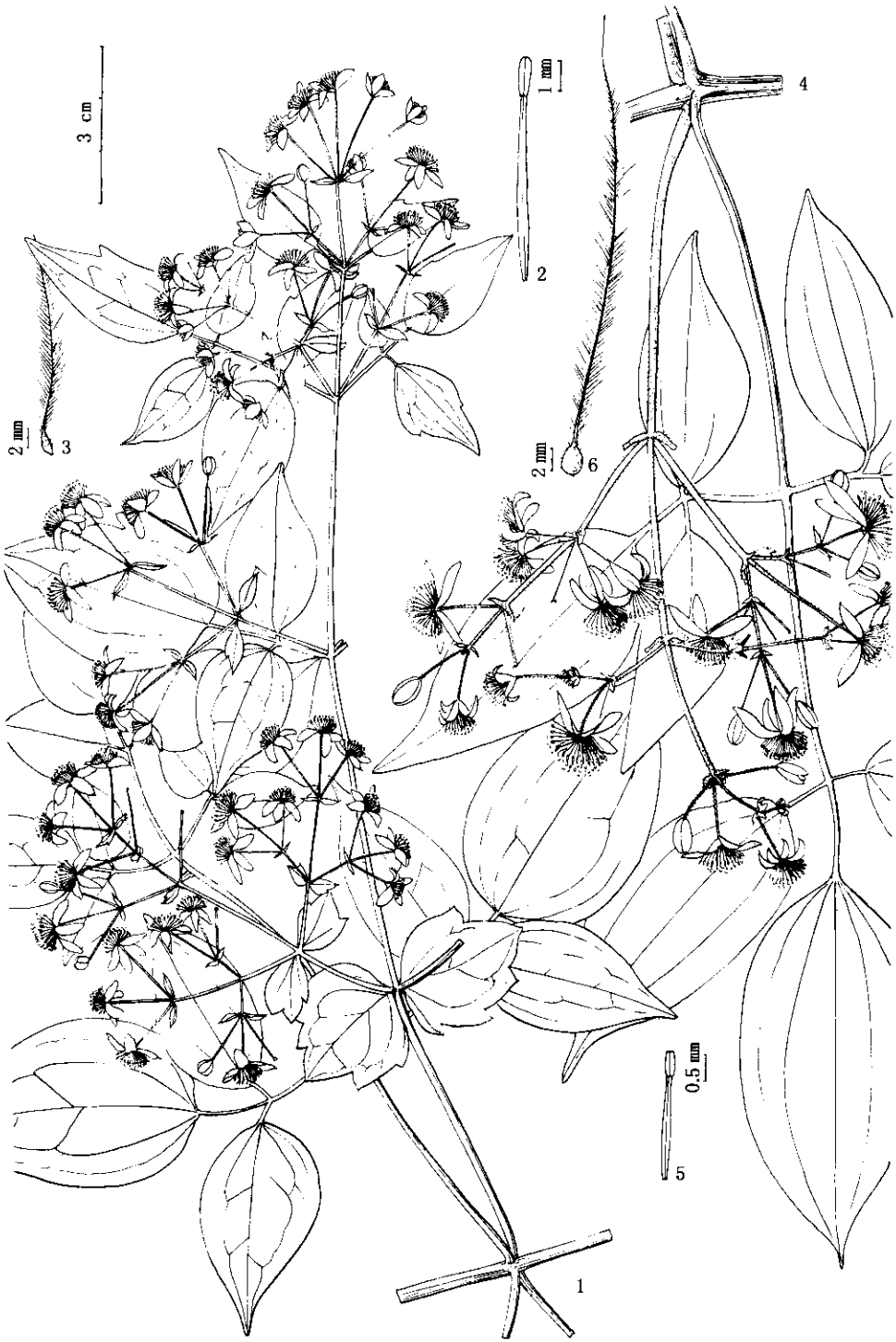

Fig. 4　1～3. *Clematis acapulcensis* Hook. & Arn. var *acapulcensis*　1. Staminate flowering branch; 2. Stamen (from A. Smith A656); 3. Achene (from Hassler 10843). 4～6. *C. affinis* St. Hilaire　4. Staminate flowering branch; 5. Stamen (from Kummrow 882); 6. Achene (from Hatschbach 42209).

Fig. 5 1~2. *Clematis jeypurensis* Beddome 1. Fowering branch; 2. Two stamens (from Beddome s. n.). 3~6. *C. obtusifolia* R. Brown 3. Pistillate flowering branch; 4. Staminode (from R. Brown 4854); 5. Pistillate flowering branch; 6. Staminode (from R. C. Gunn s. n.).

longis 2.8 cm latis apice acutis vel attenuatis, cymis pistillatis 2~6-floris, floribus pistillatis haud singulariter axillaribus differt. Habitu aliquantum similis *C. microphyllae* DC., quae foliolis oblongo-lanceolatis vel lineari-lanceolatis, ovariis glabris recedit.

Liana lignosa . Caulis gracilis , 1 ~ 3 mm diametro , vadose 8 ~ 10 - canaliculatus , ad nodos sparse puberulus alibi glaber, breviter vel longe ramosus. Folia opposita, ea caulina biternata, ea ramea ternata; foliola petiolulata, petiolulis 1 ~ 5 mm longis, subcoriacea, oblongo-elliptica vel oblongo-ovata, 0.7 ~ 2.2 cm longa, 4 ~ 9 mm lata, apice obtusa vel subrotundata, basi cuneata, late cuneata, vel subrotundata, margine integra, supra subglabra, subtus sparsissime puberula vel subglabra, costis mediis planis, nervis basalibus lateralibus obscuris; petioli 0.8 ~ 3.5 cm longi, sparsissime puberuli, glabrescentes, caulini cum rhachidibus saepe cirriformes. Cymae staminatae et flores staminati ignoti. Cymae pistillatae axillares, 1(~ 2)-florae vel flores pistillati ad axillas foliorum singulariter nascentes; pedunculi 1.2 ~ 1.7 cm longi, sparsissime puberuli vel subglabri; bracteae spathulatae, 7 ~ 11 mm longae, 2 ~ 3.2 mm latae, apice rotundatae vel obtusae. Flos pistillatus ca. 1.8 cm diametro; pedicellus 3 ~ 5 cm longus, apice sparse puberulo excepto glaber; sepala 4, subpatentia, lanceolato-linearia, 12 ~ 13 mm longa, 3 ~ 3.8 mm lata, apice obtusa, intus glabra, extus sparsissime puberula vel subglabra, margine velutina; staminodia ca. 8, 9 ~ 11 mm longa, glabra, filamentis anguste linearibus, antheris sterilibus subulatis 2.2 ~ 2.8 mm longis; carpella ca. 20, ovariis dense pubescentibus, stylis ca. 9 mm longis dense villosis.

Australia. Tasmania, Port Dalrymple, 1802-1805, R. Brown 4854 (holotype, here designated, BM); without precise locality, R. C. Gunn s. n. (p. p., S).

4 黄花铁线莲组-怀特铁线莲亚组

Sect. **Meclatis** (Spach) Tamura subsect. **Wightianae** (Prantl) W. T. Wang.

Sect. *Meclatis* is related to and more advanced than sect. *Clematis*, differing from the latter in its hairy stamens (In sect. *Clematis*, the stamens are glabrous.). It consists of two groups: the primitive group, subsect. *Wightianae* is characterized by white, spreading sepals and narrowly linear filaments, whereas the advanced group, subsect. *Orientales* by yellow, usually ascending sepals and narrowly lanceolate filaments (Wang, 2000a). Subsect. *Orientales* revised eleven years ago by Grey-Wilson (1989) has about 12 species, wide-spread in temperate Asia, with one species extending westwards to southeastearn Europe. Subsect. *Wightianae* has about 21 species, of which 8 (see below) occur in Madagascar and adjoining islands with 7 endemics and 1 being in common with southern Africa, about 12 (*Clematis kakoulimensis* Schnell, *C. simensis* Fresen., *C. tibestica* Quézl, *C. dolichopoda* Brenan, *C. viridiflora* Bertol., *C. commutata* Kuntze, *C. hirsuta* Perr. & Guill., *C. brachiata* Thunb., *C. oweniae* Harvey, *C. triloba* Thunb., *C. welwitschii* Hiern ex Kuntze, and *C. thalictrifolia* Engler) are distributed in African mainland, with 2 (*C. simensis* and *C. hirsuta*) northeastwards extending to southern Arabic Peninsula and 1 (*C. brachiata*) being in common with Madagascar as mentioned above, and the remaining 2 species, *C. wightiana* Wall. and *C. graveolens* Lindl., are restricted in geographical distribution to southern India and western Himalaya in Asia respectively.

While working on the *Clematis* collections in P in 1999, I found out various misidentifications to the species belonging to subsect. *Wightianae* in the account of the genus *Clematis* of Madagascar and adjoining islands made by Viguier & Perrier (1949): (a) The specimens of *C. mauritiana* Lam. var. *mauritiana*, *C. mauritiana* var. *coriacea* Kuntze, *C. microcuspis* Baker, and *C. actinostemmatifolia* W. T. Wang were all identified as *C. orientalis* L. ssp. *simensis* Fresen., being in fact not *C. simensis* Fresen. of African mainland; those of *C. laxiflora* Baker and *C. ibarensis* Baker as *C. orientalis* L. ssp. *wightiana* Wall., being in fact not *C. wightiana* Wall. endemic

to southern India; and those of *C. comorensis* W. T. Wang as *C. orientalis* L. ssp. *brachiata* Thunb., being in fact not *C. brachiata* Thund. (b) The name *C. ibarensis* Baker given to a species with once pinnate leaves and bisexual flowers (see below) was strongly misapplied to a entirely different species, *C. rutoides* W. T. Wang, with 2 ~ 3-pinnate leaves and unisexual flowers, being a member of the sect. *Aspidanthera* (Wang, 2000a), and another unisexual species, *C. edentata* Baker (= *C. insidiosa* Baill.) was treated as a subspecies of *C. ibarensis* sensu Viguier & Perrier. (Wang, 2000a). (c) And last, *C. dissecta* Baker was erroneously treated as synonymous with *C. pimpinellifolia* Hook., which belongs to the sect. *Pseudanemone* with erect stems and imbricate sepals (Wang, 2000b). In sect. *Meclatis*, the plants are usually woody vines, and the sepals are valvate in aestivation. After examining the relevant herbarium material deposited in K, P etc., I recognize 8 species of subsect. *Wightianae* occurring in Madagascar and adjoining islands, and provide an enumeration of them with a key as follows. Since the publication of the account by Viguier & Perrier (1949), *C. ibarensis* Baker has been strongly erroneously defined as mentioned above. So, I would like here to give a full description of the true *C. ibarensis* Baker, which was originally described on the basis of a single fruiting specimen, Kitching s. n., deposited in K.

Clavis specierum Madagascar et ejus insularum contiguarum

1. Folia simplicia ····· 4.1. **C. actinostemmatifolia**
1. Folia composita.
  2. Folia ternata.
    3. Foliola margine sparse denticulata vel integra, indivisa; antherae anguste oblongae ····· 4.2. **C. strigillosa**
    3. Foliola margine e basi ad apicem regulariter multi-dentata, indivisa vel 2 ~ 3-lobulata; antherae anguste oblongae vel lineares ····· 4.3. **C. mauritiana**
      4. Foliola subtus haud reticulata ····· 4.3a. var. **mauritiana**
      4. Foliola subtus conspicue subtiliterque reticulata ····· 4.3b. var. **coriacea**
  2. Folia pinnata vel bipinnata, interdum suprema ternata (in *C. ibarensi* Baker), vel ter quaterve pinnatisecta.
    5. Folia 5-foliolatim pinnata, interdum suprema ternata (in *C. ibarensi* Baker).
      6. Foliola oblongo-lanceolata vel anguste ovata, 4 ~ 7 cm longa, 1.5 ~ 3.6 cm lata, apice attenuata, basi rotundata, margine denticulata, nervis basalibus subtus fere planis vel paulum prominentibus; antherae oblongae ····· 4.4. **C. ibarensis**
      6. Foliola late ovata vel ovata, 4.5 ~ 10 cm longa, 3 ~ 9 cm lata, apice acuta vel acuminata, basi cordata, subcordata vel rotundata, margine dentata vel denticulata, nervis basalibus subtus prominentibus ····· 4.5. **C. microcuspis**
    5. Folia bipinnata vel ter quaterve pinnatisecta.
      7. Folia bipinnata, foliolis petiolulatis ovatis 2.2 ~ 5 cm latis margine dentatis.
        8. Foliola papyracea vel herbacea; antherae oblongae, 1.5 ~ 1.8 mm longae ····· 4.6. **C. comoresensis**
        8. Foliola crassiora, subcoriacea; antherae anguste oblongae, 1.8 ~ 2 mm longae ····· 4.7. **C. brachiata**
      7. Folia ter quaterve pinnatisecta, lobulis ultimis parvis sessilibus linearibus vel anguste triangularibus 0.6 ~ 2 mm latis margine integris vel minute 1 ~ 2-denticulatis ····· 4.8. **C. dissecta**

4.1 Clematis actinostemmatifolia W. T. Wang in Acta Phytotax. Sin. 38 (5): 421, fig. 3: 1 ~ 3. 2000. TYPE: Comoros. Boivin s. n. (holotype, P!).

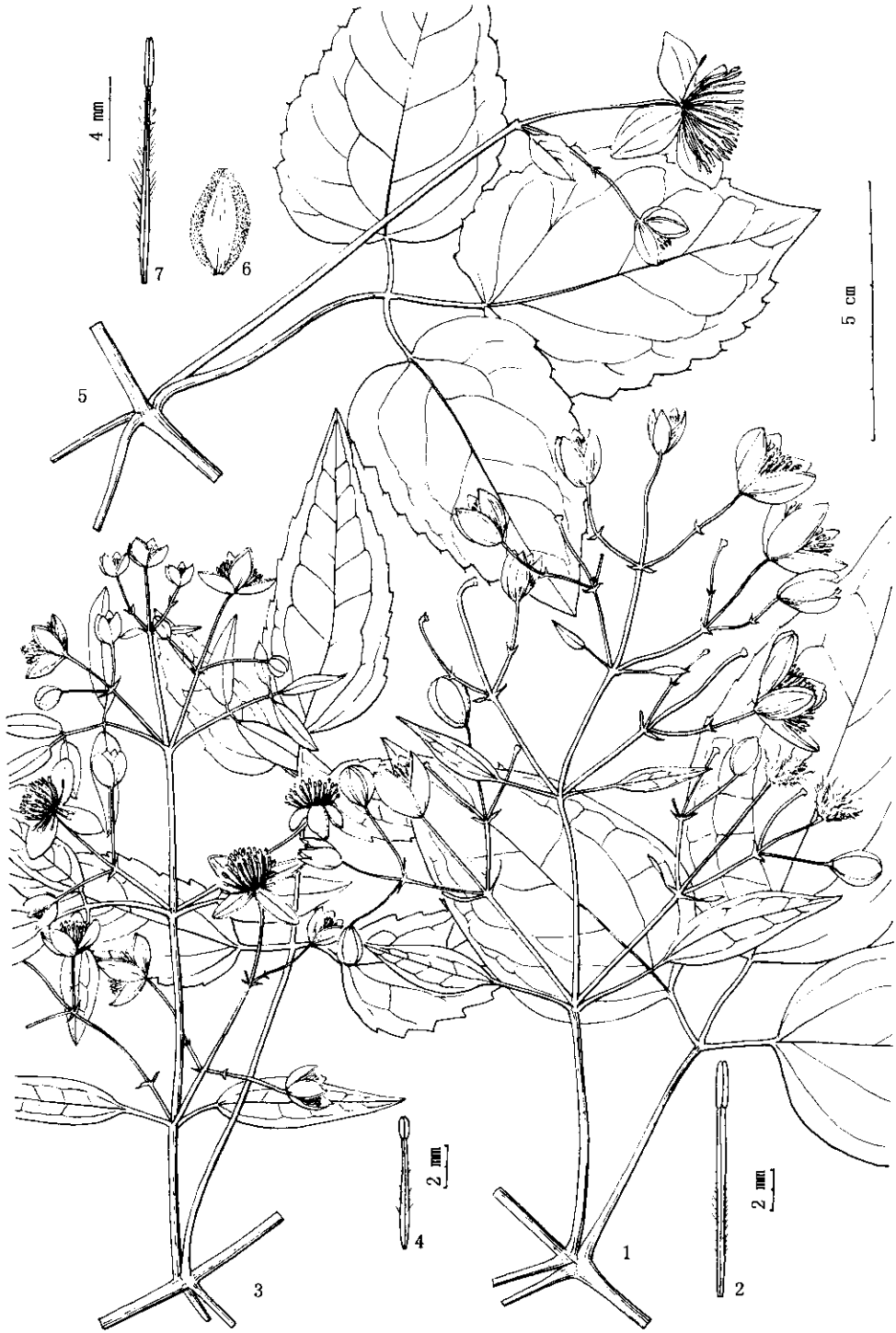

Fig. 6　1～2. *Clematis strigillosa* Baker　1. Flowering branch; 2. Stamen (from Lewis *et al*. 1234). 3～4. *C. ibarensis* Baker　3. Flowering branch; 4. Stamen (from Seyrig 38). 5～7. *C. mauritiana* Lam. var. *mauritiana*　5. Flowering branch; 6. Sepal outside; 7. Stamen (from Ayres s. n.).

C. orientalis L. ssp. *simensis* Viguier & Perrier in Mém, Inst. Sci Madag., ser. B, 2(2): 223. 1949, p. p. quoad pl. Comor., non *C. simensis* Fresen.

Distribution: Comoros.

4.2 Clematis strigillosa Baker in J. Linn. Soc. London 18: 265. 1881; Baill. in Bull. Soc. Linn. Paris 1: 331. 1882. ——*C. mauritiana* Lam. ssp. *strigillosa* (Baker) Kuntze in Verh. Bot. Ver. Brand. 26: 166. 1885. TYPE: Madagascar. Tanala, Kitching s. n. (lectotype, designated here, K!; isolectotype, P!); Anevoca, between Tamtava and Antananarivo, 1862-07, Meller s. n. (syntype, K!). Fig. 6: 1~2

C. laxiflora Baker in J. Linn. Soc. London 21: 317. 1884; M. Johnson, Klematis 463. 1997, syn. nov. ——*C. mauritiana* Lam. ssp. *laxiflora* (Baker) Kuntze, l. c., syn. nov. TYPE: Central Madagascar: Baron 2448 (holotype, K! isotype, P!).

C. orientalis L. ssp. *wightiana* Viguier & Perrier in Mém. Inst. Sci Madag., ser. B, 2 (2): 223. 1949, p. p. quoad Baron 2448, non *C. wightiana* Wall.; Perrier in Humbert, Fl. Madag. & Comor. 76 Fam. Ranunculac. 13. 1950, p. p. quoad Baron 2448.

C. mauritiana auct. non Lam.: Viguier & Perrier, l. c., p. p. quoad syn. *C. strigillosa* Baker; Perrier in Humbert. l. c., p. p. quoad syn. *C. strigillosa* Baker; M. Johnson, Klematis 463. 1997, p. p. quoad syn. *C. strigillosa* Baker.

Madagascar. Andranomifototra, Lewis *et al*. 1234 (P); Toamasina, Andasibe, Phillipson 2093 (K); without precise localities, Baron 13, Catat 1701, Perrier 12610 (P).

Distribution: Madagascar.

4.3 Clematis mauritiana Lam. Encyc. 2: 42. 1786; Pers. Synop. 2: 99. 1807; DC. Syst. 1: 152. 1818; Prodr. 1: 16. 1824; Baker, Fl. Maurit. & Seych. 1. 1877; Baill. in Bull. Soc. Linn. Paris 1: 331. 1882; Kuntze in Verh. Bot. Ver. Brand. 26: 166. 1885; Cordem. Fl. Reun. 297. 1895; Viguier & Perrier in Mém. Inst. Sci. Madag., ser. B, 2(2): 224. 1949, p. p.; Perrier in Humbert, Fl. Madag. & Comor. 76 Fam. Ranunculac. 224. 1950. p. p.; Coode in Basser *et al*. Fl. Mascar. 3. 1980; M. Johnson, Klematis 463. 1997, p. p., excl. syn. *C. strigillosa* Baker. TYPE: Island Reunion, Commerson 12 (lectotype, P!).

C. triflora Vahl, Symb. Bot. 3: 74. 1794. TYPE: Island Bourbon, not seen.

C. mauritiana Lam. β. *sonnerattii* Pers. Synop. 2: 99. 1807. TYPE: unknown.

C. sarcophaga Comm. ex Pers. l. c., pro syn.

C. furialis Comm. ex Kuntze. l. c., pro syn.

C. urentissima Comm. ex Kuntze. l. c., pro syn.

C. mauritiana Lam. ssp. *humilis* Kuntze. l. c. TYPE: unknown.

4.3a Var. **mauritiana** Fig. 6: 5~7

Mauritius: Boivin s. n. (G, P, UPS), Perrottet s. n. (G, P), Hooker s. n., Bojer s. n. (K), Ayres s. n. (GH).

Island Reunion. Cadet 4331 (K, P), Friedman 1229 (K, P), Bosser 9358, Frappier 48, 50 (P).

Madagascar. Ambalavao, Ragafwdza 3058 (P); Ambohimanga, Waterlot s. n. (P); Itremo, Humbert 29957 (P).

Distribution: Mauritius, Isl. Reunion, Madagascar.

4.3b Var. **coriacea** Kuntze in Verh. Bot. Ver. Brand. 26: 166. 1885. TYPE: Madagascar. Baron s. n. (holotype, K!).

C. bathiei Lévl. in Bull. Acad. Intern. Geogr. Bot. 7: 3. 1917, syn. nov. TYPE: Madagascar. Analamazoatra, 800 m, 1912-08, Perrier 4916 (holotype, P!).

C. mauritiana Lam. var. *sulfurea* Viguier & Perrier in Mém. Inst. Sci. Madag., ser. B, 2 (2): 224. 1949; Perrier in Humbert, Fl. Madag. & Comor. 76 Fam. Ranunculac. 16. 1950, syn. nov. TYPE: Madagascar. Andringitra Mts., 2200 m, 1911, Perrier 4908 (holotype, P!).

C. orientalis L. ssp. *simensis* Viguier & Perrier in l. c. 223, p. p. quoad Cours 1410, Perrier 4904 et 4916, non *C. simensis* Fresen.; Lauener & Green in Not. R. Bot. Gard. Edinb. 23 (4): 583. 1961, p. p. quoad syn. *C. bathiei* Lévl. tantum.

Island Reunion. Lorence 2731 (K, P).

Madagascar. Ankaratra Mts., Humbert 30292 (P); Ambositra, Humbert & Swingle 4797 (P); Antanarivo, Rakotozafy *et al*. 2731 (P); Gorges de la Mandraka, Humbert 2305 (P); Ouulatoudzazaka, Rhkotovao 12134 (P); Tananarivo, Goudot s. n. (G); Antsirabe, Humbert & Swingle 4659 (G); without precise localities, Baron 323, 808, 1155, 1319, 1507, Parker s. n. (K).

Distribution: Island Reunion and Madagascar.

In Johnson's monograph (1997), *Clematis mauritiana* Lam. var. *coriacea* Kuntze and var. *sulfurea* Viguier & Perrier were not included, and *C. bathiei* Lévl. was treated as one of the synonyms of *C. simensis* Fresen.

4.4 Clematis ibarensis Baker in J. Linn. Soc. London 18: 264. 1881; Baill. in Bull. Soc. Linn. Paris 1: 331. 1882; Kuntze in Verh. Bot. Ver. Brand. 26: 110. 1885. TYPE: Madagascar. Ibara Country, 1879, Kitching s. n. (holotype, K! phototypes, P! PE!). Fig. 6: 3~4

C. orientalis L. ssp. *wightiana* Viguier & Perrier in Mém. Inst. Sci. Madag., ser. B, 2 (2): 223. 1949, p. p. quoad Perville 775, Perrier 4911, 13147, non *C. wightiana* Wall.; Perrier in Humbert, Fl. Madag. et Comor. 76 Fam. Ranunculac. 13. 1950, p. p.

Liana lignosa. Rami graciles, vadose 6~8-canaliculati, sparse puberuli vel subglabri. Folia pinnata, 5-foliolata, interdum suprema ternata; foliola crasse papyracea vel papyracea, oblongo-lanceolata vel anguste ovata, 4~7 cm longa, 1.5~3.6 cm lata, apice attenuata, basi rotundata, margine denticulata denticulis apice mucronulatis, supra adpresse pilosa, subtus dense vel sparse puberula, nervis basalibus subtus fere planis vel leviter prominentibus; petioli 2~5.5 cm longi. Cymae axillares et terminales, 5-multiflorae, saepe paniculiformes; pedunculi 1.4~5.5 cm longi, subglabri; bracteae lineari-triangulares, lanceolatae vel ovatae, 1~4 cm longae. Flos bisexualis, 1.2~2.8 cm diametro; pedicellus 1.3~3 cm longus, subglaber vel prope apicem puberulus. Sepala 4, patentia, obovato-oblonga, late elliptica, vel ovata, (6~) 8~14 mm longa, (3~) 4~9 mm lata, apice obtusa vel acuta, intus plus minusve dense puberula, extus sparse vel dense puberula, margine velutina. Stamina 6~10 mm longa, filamentis anguste linearibus pubescentibus, antheris oblongis 1~1.5 mm longis glabris apice obtusis. Ovaria dense pubescentia; styli 7~8 mm longi, dense villosi. Achenia compressa, suborbicularia vel subrhombica, 3~3.5 mm longa, 2.5 mm lata, angustissime marginata, pubescentia; styli persistentes ca. 3 cm longi, plumosi.

Madagascar. Ampandrandava, Seyrig 38 (P); Autsirabe, Perrier 4925, 4927 (P); Betsileo, Perrier 4911 (P); Esira, Rakotomana 3920 (P); Imerina, Perrier 4910 (P); Isalo, Keraudren 1193 (P); Muma Koanbaluy, Kotovao 12199 (P); Nohibe, Perville 775 (P); Poealomava, Ischzy 7439 (P); Ranoluia, Razafuiclzakobo 10687 (P); Tchennana, Poisson 301 (P).

Distribution: Madagascar.

4.5 Clematis microcuspis Baker in J. Linn. Soc. London 21: 317. 1884; M. Johnson, Klematis 464. 1997. TYPE: Central Madagascar. Baron 2336 (lectotype, here designated, K! isolectotype, P!), 2333 (syntypes, BM! K!).

C. orientalis L. ssp. *simensis* Viguier & Perrier in Mém. Inst. Sci. Madag., ser. B, 2 (2): 223. 1949, p. p. quoad Cours 1410 et Decary 14675, non *C. simensis* Fresen.

Madagascar. Ambatondrazaka, Cours 1410 (P); Analamazaotra, Perrier 4904 (P); Vohemar, Decary 14675 (P).

Distribution: Madagascar.

4.6 Clematis comoresensis W. T. Wang in Acta Phytotax. Sin. 38 (4): 326. fig. 3: 1~4. 2000. TYPE: Comoros. without precise localities, Humblot 1518 (holotype, P!), 1217 (paratype, P!); Moheli, Boivin s. n. (paratype, P!).

C. orientalis L. ssp. *simensis* Viguier & Perrier in Mém. Inst. Sci. Madag., ser. B, 2(2): 223. 1949, p. p. quoad pl. Comoros., non *C. simensis* Fresen.; Perrier in Humbert, Fl. Madag. & Comor. 76 Fam. Ranunculac. 13. 1950, p. p. quoad pl. Comoros.

C. orientalis L. ssp. *brachiata* Viguier & Perrier in l. c., p. p. quoad pl. Comoros., non *C. brachiata* Thunb.; Perrier in Humbert l. c., p. p. quoad pl. Comoros.

Distribution: Comoros.

4.7 Clematis brachiata Thunb. Prodr. Pl. Cap. 2: 94. 1800; Fl. Cap. 441. 1823; Harvey & Sond. Fl. Cap. 1: 2. 1859; Marloth, Fl. S. Afr. 221. 1913; Adamson & Salter, Fl. Cap. Penin. 401. 1950; Exell & Milne-Redhead in Fl. Zambes. 1: 91. 1960; Letty, Wild Flow. Transv. 140. 1962; White, For. Fl. N. Rhodesia 46. 1962; Merxm. Prodr. Fl. Südwestafr.: 37. Ranunculac. 2. 1968; Exell *et al*. in Fernand. Fl. Mocamb.: 4. Ranunculac. 4. 1973; Compton, Fl. Swazil. 206. 1976; M. Johnson, Klematis 456. 1997. ——*C. orientalis* L. ssp. *brachiata* (Thunb.) Kuntze in Verh. Bot. Ver. Brand. 26: 125. 1885, cum var. *subglabra* Kuntze; Viguier & Perrier in Mém. Inst. Sci. Madag., ser. B, 2(2): 223. 1949, p. p. quoad Perrier 4910, 4925, 4927. TYPE: South Africa. UPS no. 13000 (holotype, UPS!).

C. brachiata Ker-Gawler in Edwards, Bot. Reg. 2: t. 97. 1816; DC. Syst. 1: 150. 1818; Prodr. 1: 6. 1824. TYPE: unknown.

C. massoniana DC. Syst. 1: 135. 1818; Prodr. 1: 3. 1824. TYPE: South Africa. Masson s. n. (holotype, BM!).

C. kerrii Steud. Nom. Bot. ed. 2, 379. 1840, nom. nud.

C. stewartiae Burtt Davy, Man. Flow. Pl. & Ferns Transv. 1: 111. 1926; Compton, Fl. Swazil. 206. 1976. TYPE: Swaziland. Stewart 100 (holotype, K!).

C. stewartiae var. *wilmsii* Burtt Davy, l. c. TYPE: South Africa. Transvaal, Lydenburg, 1893-02, Wilms 1 (holotype, K!).

C. brachiata Thunb. var. *burkei* Burtt Davy, l. c. TYPE: South Africa. Bay Sprint, Burke s. n. (holotype, K!).

Angola. Humpata, Pearson 2631 (K).

Botswana. Guborone, Hansen 3383 (K); Northern Distr., Lambrecht 215 (K).

South Africea. Barberton, Williams 7669 (PRE); Cape, Gill s. n., Cooper 582, 1517, Harvey s. n., Kuntze s. n., Hutchinson 3148, Rogers 27772, Meeuse 9667 (K); Natal, Mogg 7172, Halliwell 5126, McClean 554, Stray 11263, Venter 3881 (K), Codd 9648 (P); Pretoria, Schieben 7880 (US).

Swaziland. Kemp 734 (US).

Zambia. Livinstone, Gilges 632 (K); Mbala, Sanane 714 (K).

Zimbabwe. Belingwe, Simon 2446 (K); Fort Victoria, Leach 11673 (K); Inyanga, Edwards 938 (K).

Madagascar. Hutrizabe, Perrier 4927; Hutrizuli, Perrier 4925 (P); Kissamby, Morat 1110 (P); Skopu, Perrier 4910 (P).

Distribution: Angola, Botswana, Malawi, South Africa, Swaziland, Zambia, Zimbabwe, Madagascar.

C. brachiata Thunb. is closely related to *C. hirsuta* Perr. & Guill. (Wang, 2000a), and like the latter is variable in size and indumentum of leaflets and sepals, differing from that species mainly in its subcoriaceous or coriaceous leaflets. In *C. hirsuta*, the leaflets are papery in texture. In southern Africa, the leaves of *C. brachiata* are usually pinnate, sometimes bipinnate. In the populations of Madagascar, they are bipinnate.

4.8 Clematis dissecta Baker in J. Linn. Soc. London 20: 87. 1882; Raynal in Adansonia 18 (1): 7. 1978; W. T. Wang in Acta Phytotax. Sin. 38(5): 423. fig. 4: 8 ~ 10. 2000. TYPE: Central Madagascar. Baron 2037 (holotype, K! phototype, PE! isotype, P!).

C. pimpinellifolia auct. non Hook.: Viguier & Perr. in Mém. Inst. Sci. Madag., ser. B, 2 (2): 232. 1949, p. p. quoad syn. *C. dissecta* Baker; Perrier in Humbert, Fl. Madag. & Comor. 76 Fam. Ranunculac. 24. 1950, p. p. quoad syn. *C. dissecta* Baker.

Distribution: Madagascar.

C. dissecta with thrice to four times pinnatisect leaves is the advanced species in subsect. *Wightianae* (Wang, 2000b).

5 大叶铁线莲组-羽叶铁线莲亚组

Sect. **Tubulosae** Decne. subsect. **Pinnatae** (W. T. Wang) W. T. Wang.

5.1 平谷铁线莲 新变种 图 1:1 ~ 3

Clematis pinnata Maxim. var. **ternatifolia** W. T. Wang, var. nov. Fig. 1: 1 ~ 3

A var. *pinnata* differt foliis ternatis, pedunculis 9.8 ~ 12 cm longis.

China. Beijing (北京): Pinggu (平谷), Liudian (刘店), Mt. Nanjishan (南吉山), 1972-06-13, Pinggu Exped. 224 (holotype, here designated, IMD).

In var. *pinnata*, the leaves are pinnate, 5-foliolate, and the peduncles are shorter, 3 ~ 8 cm long.

This new variety differs from *C. takedana* Makino with also ternate leaves in its pentagonous distinctly 3-fid terminal leaflets, longer peduncles, and white larger sepals.

6 尾叶铁线莲组 Sect. **Viorna** (Rchb.) Prantl.

6.1 柱梗铁线莲 新种 图 2: 5 ~ 6

Clematis teretipes W. T. Wang, sp. nov. Fig. 2: 5 ~ 6

Affinis *C. kockianae* Schneid., quae foliolis anguste ovatis margine supra basin ad apicem regulariter denticulatis vel serratis, pedicellis gracilioribus longioribus 0.8 ~ 1.2 mm diametro 0.8 ~ 3 (3.5) cm longis puberulis.

Liana lignosa, 8 m longa. Rami inconspicue 8-angulati, prope nodos sparse puberuli, ceterum glabri. Folia ternata; foliola petiolulata, papyracea, oblongo-elliptica, ca. 8.5 cm longa, 3 cm lata, apice acuminata vel attenuata, basi obtusa vel oblique rotundata, margine minute 3 ~ 4-denticu-

lata, utrinque ad nervos basales sparse vel sparsissime puberula, nervis basalibus subtus leviter prominentibus; petioli 6 ~ 6.8 cm longi, ventre sparse puberuli. Cymae axillares ca. 5-florae; pedunculi robusti, 1 ~ 9 mm longi, ca. 2 mm diametro, vulgo dense adpresseque flavido-puberuli; bracteae triangulares, ca. 3 mm longae, dense puberulae. Flos 1.5 ~ 2 cm diametro; pedicellus robustus, 8 ~ 18 mm longus, ca. 2 mm diametro, apice dilatatus, flavido-velutinus. Sepala 4, alba, erecta, oblonga vel ovato-oblonga, 17 ~ 19 mm longa, 7 ~ 8 mm lata, apice acuta, intus glabra, extus dense adpresseque puberula, ad marginem plus minusve velutina. Stamina ca. 15, ca. 15 mm longa, filamentis anguste linearibus basin versus leviter dilatatis villosis, antheris anguste oblongis 3 ~ 3.6 mm longis apice obtusis glabris. Carpella ca. 40, ca. 12 mm longa, ovariis dense puberulis, stylis ca. 11 mm longis dense villosis.

China. Sichuan (四川): Leibo (雷波), 257 km, Changhe (长河), alt. 2110 m, on slope, vine 8 m long, fl. white, 1983-04-02, Q. S. Zhao, J. B. Shi *et al*. (赵清盛,师进斌等) 117518 (holotype, here designated, SZ).

This new species is related to *C. kockiana* Schneid., and differs from the latter in its leaflets being oblong-elliptic in outline, at margin minutely 3 ~ 4-denticulate and in its robust, thicker, shorter, and velutinous pedicels.

6.2 Clematis jeypurensis Beddome, sp. nov., in herb. BM. Fig. 5: 1 ~ 2

Arcte affinis *C. roylei* Rehd., quae foliolis subtus dense vel sparse puberulis haud velutinis, cymis 3 ~ 11-floris, pedunculis usque ad 6 cm longis, antheris 2 ~ 3 mm longis, stylis tota longitudine villosis distincta.

Liana lignosa. Caulis ca. 3 mm diametro, vadose ca. 8-canaliculatus, dense luteolo-pubescens. Folia 5-foliolatim pinnata, vel foliolis infimis ad basin 2 ~ 3-sectis bipinnata, interdum ternata; foliola papyracea, ovata vel anguste ovata, 3 ~ 6 cm longa, 1.6 ~ 2.8 cm lata, apice acuta, basi late cuneata, rotundata, vel subcordata, margine dentata, indivisa vel 2 ~ 3-lobata, supra dense adpresseque puberula, subtus sericeo-velutina, nervis basalibus utrinque planis; petioli 4.6 ~ 7.2 cm longi, dense adpresseque pubescentes. Cymae axillares, 3-florae; pedunculi 2 ~ 3 cm longi, dense adpresseque pubescentes; bracteae ovatae, 1 ~ 1.5 cm longae, indivisae vel inaequaliter 2-lobatae; bracteolae anguste ovatae vel longe ellipticae, 3 ~ 8 mm longae. Flos 1.5 ~ 1.8 cm diametro; pedicellus 8 ~ 13 mm longus, dense adpresseque luteolo-puberulus. Sepala 4, erecta, anguste oblonga, 1.8 ~ 2.2 cm longa, 5 ~ 8 mm lata, apice obtusa et recurva, intus glabra, extus densissime adpresseque luteolo-puberula, margine velutina. Stamina numerosa, ca. 1.7 cm longa, filamentis anguste linearibus inferne luteolo-pubescentibus, antheris anguste oblongis 1.5 ~ 2 mm longis glabris apice obscure minuteque apiculatis. Carpella ca. 20, ca. 1.5 cm longa, ovariis dense puberulis, stylis ca. 1.4 cm longis inferne dense villosis superne puberulis.

India. Madras: Jeypur Hills, alt. 900 m, 1884? R. H. Beddome s. n. (holotype, here designated, BM).

7 茴芹铁线莲组 Sect. **Pseudanemone** Prantl.

7.1 Clematis intraglabra W. T. Wang, sp. nov. Fig. 7

Species nova ob florem solitarium terminalem ab involucro e bracteis tribus verticillatis foliiformibus composito fulcratum fortasse affinis *C. teuczii* (Kuntze) Engler e descr., quae foliis alternis anguste obtriangularibus majoribus 12 ~ 14 cm longis, sepalis 6 bene distinguitur.

Herba perennis? Caulis erectus, ca. 50 cm altus, vadose 10-canaliculatus, prope basin glaber,

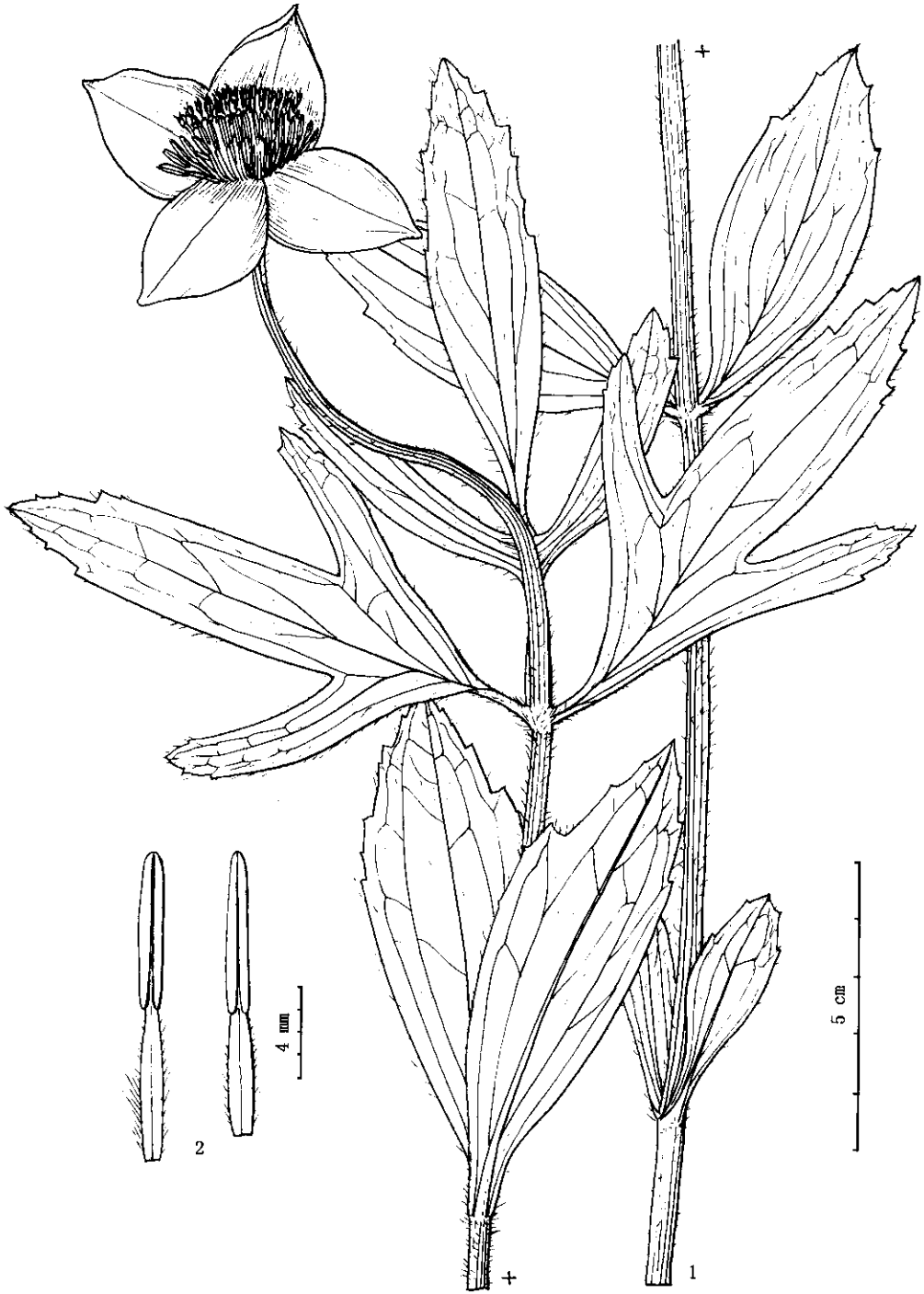

Fig. 7　*Clematis intraglabra* W. T. Wang　1. Habit; 2. Two stamens (from B. Teixeira *et al*. 10897).

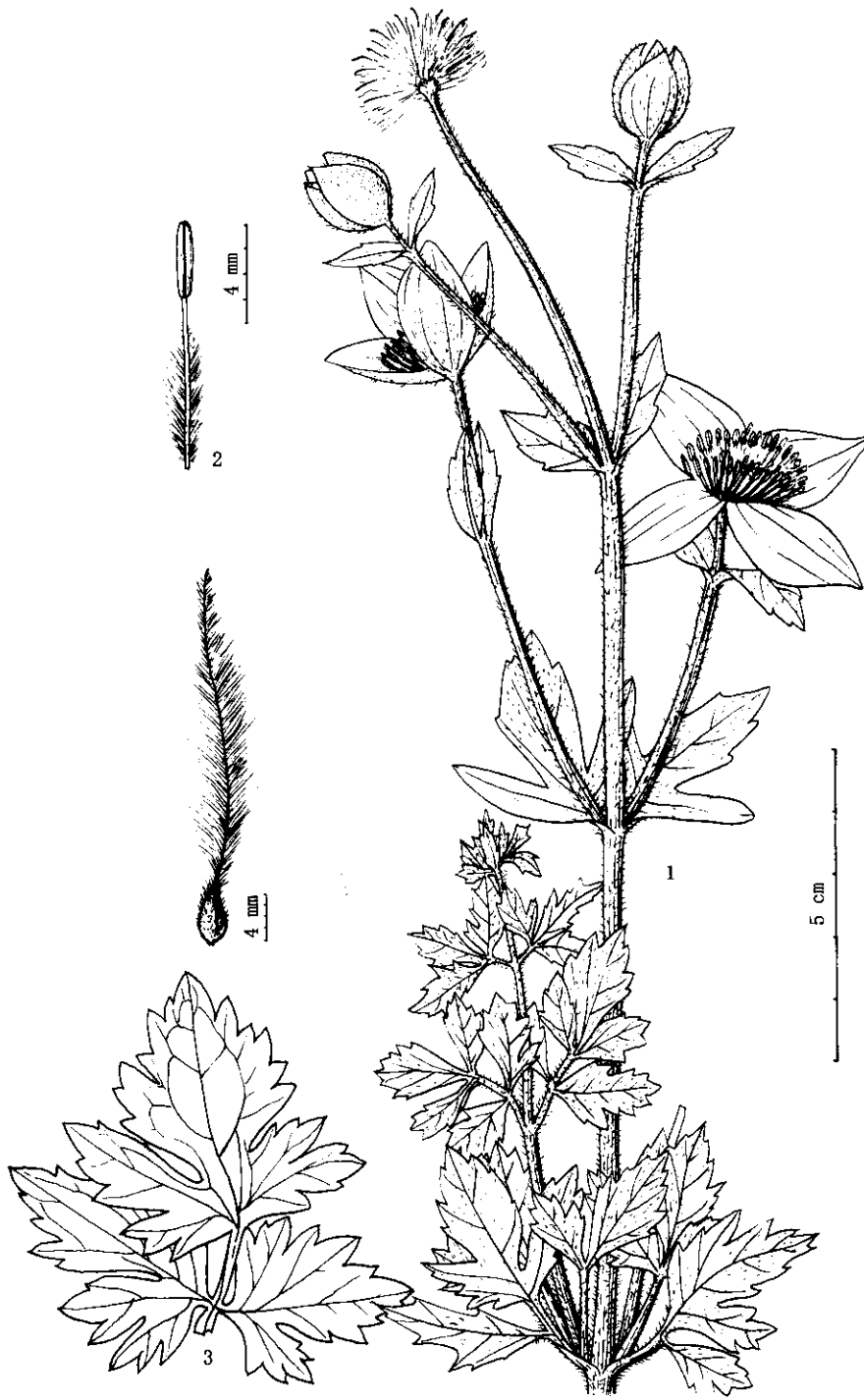

Fig. 8 *Clematis sericeopannosa* W. T. Wang 1. Upper part of the flowering plant; 2. Stamen (from Decary 12997); 3. Cauline leaf; 4. Achene (from Humbert & Capuron 28046).

alibi villosus, simplex, foliis 3-jugis instructus. Folia opposita, simplicia, sessilia vel brevissime pet-

iolata, subcoriacea, infima parva, longe elliptica vel oblongo-spathulata, ca. 3.6 cm longa, 1 ~ 1.3 cm lata, apice acuta, apiculata, basi cuneata, margine superne minute denticulata, supra sparsissime villosa vel glabrescentia, subtus ad nervos sparse villosa, utrinque reticulata, petiolis usque ad 4 mm longis, superiora eis infimis similia, sed majora, sessilia vel subsessilia, 6.7 ~ 8.5 cm longa, 2.4 ~ 2.8 cm lata, margine superne denticulata. Flos solitarius, terminalis, ca. 6 cm diametro; bracteae 3 foliiformes, verticillatae, in involucrum formantes, subsessiles vel petiolatae, petiolis usque ad 1.6 cm longis, ambitu late rhombicae vel rhombico-ovatae, ca. 9 cm longae, 6 ~ 6.5 cm latae, basi late cuneatae, 3-partitae, lobis anguste oblongis vel longe ellipticis superne denticulatis; pedicellus ca. 11 cm longus, villosus. Sepala 4, imbricata, alba, ovata vel late ovata, 3 ~ 3.3 cm longa, 2.2 ~ 2.4 cm lata, apice breviter acuminata, intus glabra, extus sparse adpresseque villosa, margine velutina. Stamina ca. 100, 1.1 ~ 1.4 cm longa, filamentis linearibus ciliatis, antheris linearibus 6 ~ 7 mm longis glabris apice obtusis. Carpella ca. 100, ovariis pubescentibus, stylis ca. 1.4 cm longis dense villosis.

Angolo. Chitembo, alt. 1500 m, 1966-10-31, Brito Teixeira *et al*. 10897 (holotype, here designated, BR).

7.2 Clematis sericeopannosa W. T. Wang, sp. nov. Fig. 8

Clematopsis bojeri (Hook.) Raynal var. *pseudoscabiosifolia* (Perrier) Raynal in Adansonia 18 (1): 10. 1978, p. p. quoad Decary 13024 et pl. 1. fig. 5.

Affinis *C. macrophyllae* (Raynal) W. T. Wang, quae foliolis subtus pubescentibus, eis terminalibus ovatis 3-lobatis, cymis 1 ~ 3-floris differt. Ob indumentum foliorum aliquantum similis *C. pimpinellifoliae* Hook. var. *pseudoscabiosifoliae* (Perrier) W. T. Wang, quae foliis magis divisis semel ad ter pinnatisectis, acheniis anguste obovatis facile distincta.

Suffrutex parvus. Caulis erectus, 60 ~ 100 cm altus, vadose 8 ~ 10-canaliculatus, dense pubescens, superne pauce ramosus. Folia opposita, ca. 6-jugata, ternata; laminae crasse papyraceae vel subcoriaceae, ambitu late ovatae vel deltoideae, 3.2 ~ 5.2 cm longae, 3.8 ~ 7 cm latae, foliolis terminalibus distincte petiolulatis ambitu fere deltoideis 3-partitis vel 3-sectis, nervis basalibus subtus leviter prominentibus, lobis medianis late rhombicis apice acutis basi late cuneatis margine inciso-dentatis, lobis lateralibus minoribus oblique angusteque rhombico-obovatis superne 3-lobulatis pauce denticulatis, foliolis lateralibus subsessilibus oblique lateque rhombicis margine 2 ~ 3-lobatis inciso-dentatis, supra adpresse pubescentes, subtus albido- vel luteolo-nitido-pannosae; petioli 0.2 ~ 1 cm longi. Cymae terminales, ca. 5-florae; bracteae foliaceae, breviter petiolatae vel subsessiles, ternatae vel simplices, 3-sectae, 3 ~ 4 cm longae; bracteolae sessiles, obovatae vel ellipticae, ca. 3 cm longae, margine superne denticulatae vel integrae. Flos 3.7 ~ 4.2 cm diametro; pedicellus 1 ~ 6 cm longus, dense luteolo-villosus. Sepala 4, alba, imbricata, patentia, elliptica vel lata elliptica, 2 ~ 2.3 cm longa, 1.2 ~ 1.4 cm lata, apice apiculata vel acuta, intus adpresse pubescentia, extus velutina. Staminia numerosa, 7 ~ 11 mm longa, filamentis linearibus inferne pubescentibus, antheris anguste oblongis 2.2 ~ 3 mm longis glabris apice obtusis. Carpella numerosa, ovariis dense pubescentibus, stylis ca. 9 mm longis dense villosis. Achenia compressa, ovata, ca. 4 mm longa, 2.2 mm lata, dense pubescentia, anguste marginata; styli persistentes 1.5 ~ 3 cm longi, plumosi.

Madagascar. Ambotofinandrahana, alt. 1600 ~ 1800 m, fl. white, 1938-02-16, Decary 12997 (holotype, here designated, P); same locality, 1938-02-17, Decary 13024 (P); same locality, alt. 1400 ~ 1500 m, 1955-01-16, Humbert & Capuron 28046 (BR, P); Ambositra: Mt.

Vatomavy, alt. 1500-1700 m, 1928-07-23, Humbert & Swingle 4782 (P).

7.3 Clematis africolineariloba W. T. Wang, nom. nov.——*Clematopsis lineariloba* Hutch. & Summ. in Bull. Misc. Inform. Kew 1925: 361. 1925. ——*Clematopsis olveri* Hutch. f. *lineariloba* (Hutch. & Summ.) Staner & Léonard in Bull. Soc. R. Bot. Belg. 82: 342. 1950.——*Clematis lineariloba* (Hutch. & Summ.) W. T. Wang in Acta Phytotax. Sin. 38(5): 428. fig. 4: 4 ~ 6. 2000, non *Clematis lineariloba* DC. in 1818, quae synonymum *C. crispae* L. est. TYPE: Tanzania. Usafwa, Stolz 2385 (holotype, K! isotypes, BR! P!).

Clematis oliveri (Hutch.) M. Johnson, Klematis 149. 1997, p. p. quoad syn. *Clematopsis lineariloba* Hutch. & Summ.

Clematis chrysocarpa Welw. ex Oliv. ssp. *bijuga* Brummitt in Kew Bull. 55(1): 102. 2000, p. p. quoad syn. *Clematopsis lineariloba* Hutch. & Summ.

Distribution: Tanzania.

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